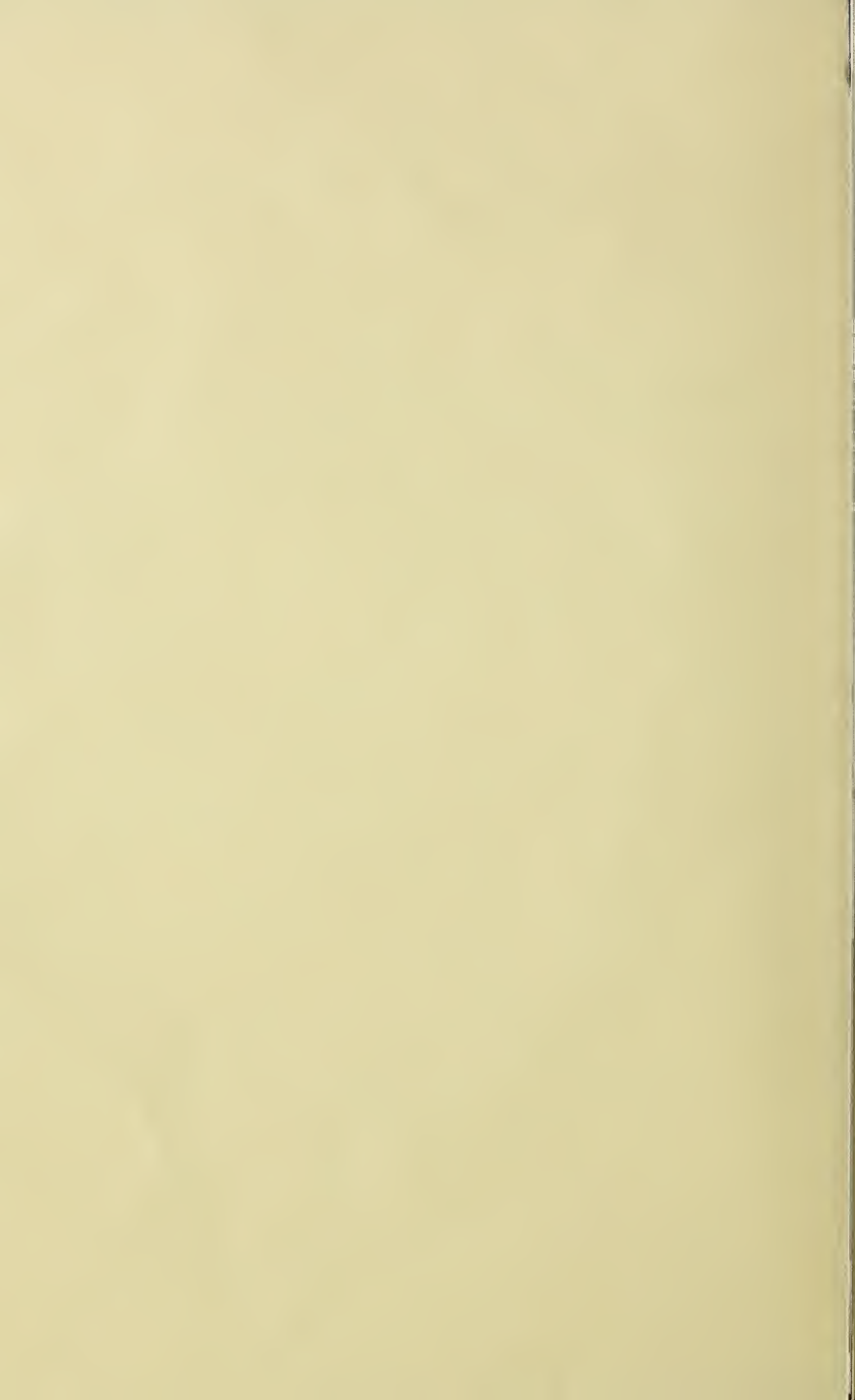


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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

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BALTIMORE, MAY, 1881.

No. 5.

Our Paris Letter.

(Regular Correspondence.)

PARIS, FRANCE, Mar. 21, 1881.

In the Chamber of Deputies, a day or two since, the Minister of Commerce was interpellated by M. Haentgens, who asked a question relative to the recent prohibition by the government of the admission of American pork into the territory of the Republic. He maintained that it was a great hardship to the poorer classes to be deprived of their food, and argued that if the meat be properly cooked, no harm would come from eating it. M. Tirard could only reply, backed up by the evidence of the official analysts, that certain parcels of American pork had been subjected to microscopic examinations, and that trichinæ had been discovered. M. Haentgens' interpellation was probably suggested by the conversation about American pork which took place in the House of Commons the other day. An honorable member was asked whether the Administration intended to take any measures similar to those adopted by most of the governments of the continent to prevent the introduction of infected American pork. He was told from the Treasury Bench that the government did not believe trichinæ to be general, and that it was not in contemplation, at least for the present, to exclude trans-atlantic swine's flesh from English ports; but that, at the same time, the public at large would be recommended to guard against the apprehended evil by properly cooking their pork. It can scarcely be said, as a general rule, that English people are apt to consume pork in an imperfectly cooked condition. Breakfast bacon is usually "frizzled" until it is deprived of at least half of its oleaginous properties, the fat bacon, which, when the agricultural

laborer can procure it is his substitute for butcher's meat, is rather over than under-boiled; and they must be hardy trichinæ, indeed, who could stand the fierce action of heat in the great cauldrons in which the monstrous hams dispensed by eating-house keepers are boiled. The French "scientists" however, continue to asseverate that ordinary boiling will not destroy "trichinæ." The government sides with science, and the prohibition of American pork remains in force, scientists and officials alike ignoring the fact that vast quantities of swine's flesh, whether salted or fresh, which are so greedily devoured by the middle and laboring classes in France, are not American pork at all. French pork is a very popular meat. The French hog is a gaunt, scrubby, long snouted, flop eared, low quartered, grey hound barrelled, long leg, limp tailed animal, although the influence of enlightenment and agricultural societies may have done much to improve the various pigs in France. The richest of fat bacon produced, never makes its appearance at the table, save in the form of the minute "spicula," with which "fricandeaux" are larded; but thousands of pounds weight of fat bacon are consumed every day in French kitchens, for basting hard and dry meats.

Turkeys and hares, for example, are covered with a complete envelope of it while they are being roasted; while immense quantities of lean bacon are used in the preparation of sauces. As for the French ham it is assuredly very good, but it is deficient in fat. It is, nevertheless, so admirably cured as to be both sweet and tender, and a visit to the annual "Foire aux Jambons, at the Barriere du Frone, will be sufficient to prove that, at least, four-fifths of this ham is of French growth and manufacture.

Farm Work for May.

This usually fine season for farm work is at hand, but owing to the extreme severity of the past winter, the farm work in consonance with the season is backward by a month, hence the necessity for extreme activity on the part of farmers and planters. We therefore would advise our friends to redouble their exertions, so as to catch up with the rapid changes of the season. Get in the corn crop as soon as possible, and endeavor to follow our instructions about this great crop, given in the April number. Of course, all the fences have been repaired, gates put in order, and the necessary draining by open or tile ditches made; roads made good, and all out-houses cleaned and painted or whitewashed. The hedges trimmed; plank, or post and rail fences coated with whitewash or gas-tar, and wire fences looked over and tightened if needed. We advise further experiments with wire fences. The majority, or we may say nearly all who have used the barbed wire twisted fence are highly pleased with it as an effectual, durable fence and economical. While we are frank to say, that there are some who object to them and assign reasons for their objections, yet, we think, those reasons are only such as may be applied to almost every improvement of this progressive age. Hedges and wire fencing have, of course, objectionable features, but we think they are among the best of the many new introductions in American agriculture, tending to the future economy and comfort of farmers, on a par with steam adapted to farming operations, travel, transportation, &c.

CORN.

This crop should be planted now as soon as the land is dry enough, and in proper condition by thorough working with the plow, harrow and roller, if the last be necessary for a perfect comminution of the soil. Get good seed. Try some of the

late, new sorts, especially try the "*Blount*," which has a great reputation. It is said on good authority that, a bushel of this corn on the cob weighed thirty-five pounds, and gave 17.5 quarts of grain, weighing 28.99 pounds, the cobs being only 6.01 pounds. It is said, on good land, with good culture and a fair distance—say 4 feet by 20 inches, when drilled, to yield from 4 to 10 ears to the stalk, or an average of 5 to 6 large ears to the stalk. There is no possible loss to be sustained in trying any of the newer varieties of corn, as let it be a failure or not, the crop must repay the first outlay, if only the small quantity of a peck or so be experimented with, therefore we advise our farmers to try a little of some one or more varieties that are so highly recommended and thereby become their own self-satisfiers at no risk of loss.

TOBACCO.

It is presumed that the stripping of tobacco is nearly over. The "conditioning" is to be attended to strictly, and the planter by all means should not allow any circumstances, if possible, induce him to send his crop to market before it is perfectly cured and has acquired the permanent, sweet smell that neither weather or time can change. The chief cause of discontent with inspectors of tobacco has been, that the planter packs it too soon, sends it and has it inspected at once; it appears to be in order and is bound to pass. Before it reaches its foreign destination it has undergone the inevitable change in condition which should have taken place before it was allowed to be packed, and of course, its samples in Holland or elsewhere, do not correspond with those drawn in Baltimore six or twelve months before. The summer heat should be felt by cured tobacco before it is put in the hogshead, is, in our judgment, a criterion for the planter to feel assured it will thereafter pass inspection as to condition anywhere.

The plants are necessarily late, owing to

the severity and length of the past winter, therefore planters should take every care of their beds and force their plants all they can, but not so as to make leaf growth only, but try and give them room enough to make bunchy roots. A plant with small, round, tough leaves, and a batch of roots, will stand better when planted out on a light season, than large leaved plants with one small tap root will do on a fine season.

Every planter should save under cover the tobacco stalks, until he can cut them up into short pieces and compost them with rich earth, manure or muck. They are very valuable adjuncts to a manure heap, and in that way do more good than if spread alone over the land, or plowed in whole. Make a pile in this way, spread a layer of coarse manure, muck or wood's earth and turf 6 inches thick, then a layer of cut tobacco stalks, like thickness, and continue this method until the stalks are used up. Moisten the heap with salt water or liquid manure. Soon the heap will begin to ferment and when the stalks have decomposed, turn over the heap and mix well with some land plaster (gypsum) and you will have a pile of the best manure that can be made. It is said that from one acre of tobacco, the stalks in this way will make a cord of fine manure.

So impressed are we of what we have urged for years, that we again repeat the suggestion—plant less land in tobacco. Make the land rich, work the crop well, top low and keep it free from worms, and then cure and condition it properly, and more money will be made from one acre, than is done under the old system from four acres. Read elsewhere in this number what Mr. Wills did last year and profit by his example. The old plan of growing tobacco has become ruinous to the planter. Under a new arrangement it will prove once more a bonanza to Southern and Middle States planters. Under the new regime, tobacco can no longer be grown with pro-

fit in the old slave States, as it was in anti-bellum days.

ARTICHOKES.

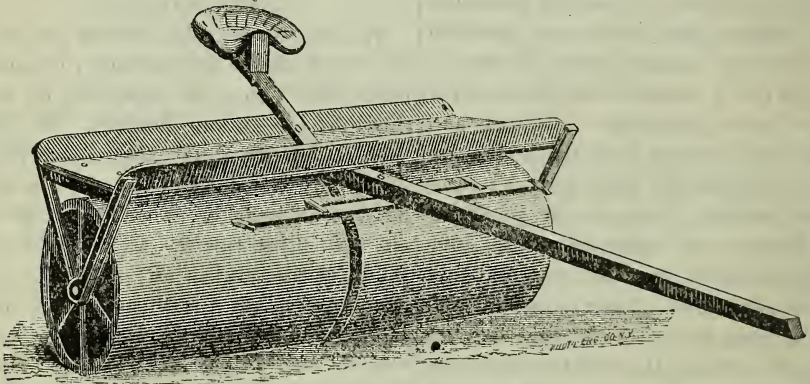
We have often called attention to the propriety of planting artichokes, if only one acre for trial. There is no doubt that it is the most inexpensive and profitable vegetable, as a healthy and fattening food for hogs, that can be grown by the farmer. See what is said of it in this number in another column. Now is the time to plant this tuber. It is believed by many in the South to be a sure preventive of hog cholera. If so, it is invaluable. It will cost but little to try it.

COW PEAS FOR STOCK FEEDING AND GREEN MANURING.

We have so often advocated the use of this vegetable in the attempt to renovate lands that it may be supposed by some that it is one of our hobbies. We have such confidence in its value as a fertilizer that we do not hesitate to place it at the head of all green crops for fertilizing worn out soils in the South. Clover, of course, stands at the head of all grasses for general purposes, but it is often a failure under the hot sun and rapidly changing temperatures of the Middle and Southern States, and requires one or two years to attain that growth which repays its expense of seed and culture. The pea gets its growth in ninety days, and therefore two crops can be plowed under during the year for fertilization in time for sowing the same year, winter grain, such as wheat, rye or oats. Or after the oats are gathered the land can be sown in peas, and be ready for wheat that autumn. It has been too often proven by experiments to be a valuable fertilizer to need facts or arguments to establish the truth of the assertion. One bushel of peas, sown now, and cultivated properly will produce enough seed for 30 acres next year. So that a little space and a little labor can keep the farmer well supplied with seed for annual green manuring.

Every Southern farmer or planter should sow an acre or more, this month, of some variety of the Southern Cow Pea, black, or black eyed, or ram's horn, or other sorts for seed. The Japan pea is strongly recommended by some. Our experience, many years ago when it was first introduced, did not favorably incline us to it, although its yield was great and the growth luxuriant in bush form, yet the stalks and branches were tough, woody and hard to decompose when turned under for fertilizing purposes, and if cured was not relished by stock as food like the old cow pea vines are when well cured, after being cut when about half the pods are ripened. In such condition,

so luxuriant it was difficult to turn them under with the plow, and he extemporized a cheap silo, cut off the pea vines and made them into ensilage. This winter and spring he has been feeding his splendid flock of some 400 Cotswold sheep upon ensilaged pea vines and they have done admirably upon it. They eat it very greedily and it proved with him a great success as an *ensilage plant*, beyond most all forage plants, because of its quick growth and enormous yield in weight per acre. The roots and debris left after the crop has been removed, still remain to fertilize the soil that produced it. It is a wonderful absorbent of ammonia from the air. Cow peas



DOUBLE LAND ROLLER.

the pea hay with its ripe and unripe peas in the long pods, seems to be the perfection of provender for sheep and is relished by all stock. We have seen sheep leave the oats in the sheaf for well cured cow pea hay. Do not neglect to secure your supply of seed peas, either for growing seed for another year, or for sowing among your corn at its last working, to be turned under in September as a fertilizer for your winter grain.

Mr. W. W. Wood, who owns a large estate in St. Mary's county, Md., and is one of the most progressive and intelligent farmers of Maryland, told us the other day, that last year he sowed a field in cow peas for fertilization, but the vines became

are therefore valuable.

He agrees with us that farmers would do well with sorghum, by making from it their own molasses and converting the leaves and expressed stalks into ensilage.

FARM IMPLEMENTS.

One of the most important implements on a well regulated farm is a good land roller. The various indispensable uses of such an implement are too obvious to the reflecting farmer for us either to mention or dwell upon. "*The Double Land Roller*," lately introduced by Messrs. Whitman, Sons & Co., of Baltimore, Md., seems to meet every requirement and is sold at a very reasonable price, when its durability and qualifications are considered. Its

length is nearly eight feet, with cylinders $27\frac{1}{2}$ inches in diameter. Light draft. We give a cut of it.

FENCING.

As fence material is growing scarcer every day, and more costly, besides fence rails and planks are not durable, easily blown down or broken by stock, except the fence be made of heavy locust posts and chestnut rails, both of which are very costly, we ask every farmer to try the twisted barb wire, if only half a ton to begin with. Those who have become timid, because of the statements of some few who have been unfortunate, among the many, in the use of this new and economical fencing material, we would suggest that they put an 8 inch wide board at the top of the fence, saving one wire and acting as a safeguard against accidents. But we believe that a few scratches by the barbs will do no harm, but be a good lesson to all vicious stock. All mischievous, breachy stock will soon be taught decent behaviour by the barbs, if they insist upon breaking out of bounds and causing quarrels between neighbors.

Garden Work for May.

This is the month that gardeners delight in. Sprouts, kale, asparagus, radishes and loaf lettuce should grace every farmer's table this month, besides rhubarb in plenty for pies and desserts. The common poke if it had been earthed over during April or before, is now a really nice dish as a substitute for asparagus. Properly cooked it is by some, thought to be superior to asparagus because of its hygienic properties. Such was the opinion of the late Judge Brewer, of Annapolis, who was an epicure as well as distinguished horticulturist and lawyer.

Cymblins (squashes).—A small patch of cymblins, in hills three feet apart each way should be planted early in the month, and later, plant crooked-neck squash, Hubbard or Turk's cap, for winter use.

Cucumber.—Plant cucumbers, the early, white spined variety, in hills, well manured and at the same distance as cymblins,

Corn.—Plant more corn for roasting ears, supposing that some has already been planted. Plant a small patch every ten days until middle of June, so as to have a succession of this popular dish. The sweet corn, as a rule, gives most satisfaction to the household.

Cabbage Plants, Cauliflower and Broccoli.—Set out plants of these on a moist, cloudy day, after a good rain. If the day be fair and warm, set them out in the evening and water well, should the earth become dry and warm.

Peas.—Sow peas at intervals of a week, to have a succession. For the later crops sow Champion of England and Blue Imperial.

Snap Beans.—Plant bunch or snap beans at intervals during this month, sow in drills. The "Wax" beans are the best.

Lima and other Pole Beans.—Plant these as soon as the soil is warm. Plant in hills with poles not trimmed close. Let the soil be loamy and rich.

Celery.—Set out some plants for early fall use.

Carrots, Salsify, Beets and Parsnips.—Weed and thin those that are growing, or sow at once, if you have not done so already.

Spinach.—Make a rich bed and sow at intervals of ten days during the month.

Onions.—Weed and thin out onions, so that the bulbs shall stand two or three inches apart in the rows. If you have not planted or sown enough seed, it can be done now. You cannot well have too many onions.

Endives.—Sow seeds of these for an early crop.

Flower Seeds.—Sow annual and biennial flower seeds during the early part of this month.

Egg Plants and Tomatoes.—Can be now set out from the cold frames. Have a large supply of tomatoes.

Peppers.—Sow pepper seed now, to be transplanted when large enough.

Okra-Gumbo.—Drill seeds in rows three feet apart, so that the plants will stand 12 or 18 inches apart in the rows. Moist soils suit it best. Plant the dwarf okra.

Sweet Potatoes.—If these are not planted as a farm crop, be sure and have a stout patch of sweet potatoes in the garden. Plant early, and in a deep, sandy loam, if possible. The exposure of the bed should

be well to the south, and the hills or drills should be heavily manured. They are indispensable to a good, vegetable garden.

Watermelons and Canteloupes.—Select a spot where these vines will not be near cucumbers, squashes or gourds. They will intermix. Gourds should not be within a half mile of the melon patch. The soil for melons should be light and very rich in the hills, well pulverized and deep. Plant watermelons in hills 8 to 10 feet apart, and canteloupes 4 or 5 feet apart. It has been recommended, and we believe from several experiments of our own, that it is true, to plant a tomato vine in each hill to protect the melons from the flies and other insects, that often injure the growth if not entirely destroy them. Get good seed.

Keep the garden soil always light and free from weeds or grass. The rake, if used often, will prove an easy and sure implement by which weeds are kept out of sight and the earth stirred about the young plants. The rake is perhaps the best and most labor saving implement for garden cultivation, if used judiciously and frequently. Water the plants of all descriptions whenever they seem to suffer from dry weather. Do not give a slight sprinkling every evening until rain comes, but once in three or four days give a heavy watering to saturate the earth two inches or more about the roots of such plants as may require moisture. For delicate, young plants, a sprinkling each evening may do, but it will be labor lost, on strong growing plants of good size.

A Lower Peninsula Fair.

SALISBURY, March 29th.

The convention of the four lower counties to consider the project of inaugurating a lower peninsula fair met here this afternoon. Delegates were present from all the counties interested. Ex-senator George R. Dennis, of Somerset, was in the chair. After discussion, a committee of three from each county was appointed to receive subscriptions. It was resolved to put the stock at \$4,000, and in five dollar shares. The undertaking meets with great favor in the lower counties and is likely to be made a success. If the committees report by June 1st, arrangements will at once be set on foot to raise a large fund, and hold the first exhibition next fall.—*American,*

For the Maryland Farmer.

Small Southern Farms.

The cry of "Go West, young man, go West," is now changed to "Go South, young man, go South," and this year will see the near by South peopled with many new faces, from the north and from foreign countries. What is injuring the South, more perhaps, than any other one thing, as far as agriculture is concerned, is having the farms too large. During the ante-bellum times this may have been the most profitable, but times have wonderfully changed since then. The owners of large plantations frequently comprising hundreds of acres, have still the "Piide of Acres," and prefer to cling to their possessions as long as they can possibly hold out, rather than sell off the most of it even at a fair price, and reserve a hundred or so of acres for their own use. Many of these land owners do not cultivate one quarter of the land they have, and are getting poorer instead of richer every year. A hundred acres properly cultivated, will return more profit than a thousand acres merely skimmed over, and the owner will have far more pleasure and less worriment to make both ends meet.

There are very many men in our northern cities, who, having saved a few hundreds of dollars, are looking for cheap, comfortable houses in the country, and the South seems to offer inducements which the West cannot, in the shape of a better climate, an easy soil to cultivate, and good and cheap transportation to the markets of our large eastern and northern cities. These families seldom want more than fifty or one hundred acres, for they expect to make a pleasant and eventually profitable home of it, by dint of economy, perseverance and hard work, and do not want more land than they can handle properly.

Just such men as these are what will benefit any rural community, no matter in what part of the United States it may be, and it will pay land owners to make extra inducements to secure such persons, for they bring with them not merely some little ready money, but they bring with them habits of industry and economy, new and improved ideas, good stock with which to improve their neighbor's, all of which is sure to give a fresh and healthy impetus to the old residents, and to encourage them

to make renewed and extra exertions to retrieve their lost prestige and fortunes, for they give a convincing proof, these new comers, of the real dignity of LABOR, and show that it does not have any debasing effect whatever. E. JR.

Value of Sawdust for Bedding.

Many farmers claim that sawdust is not only worthless as manure, but positively injurious to the soil. A farmer sends the following word in its favor: "I use it when I can get it, and value it highly for bedding the cow stable, as it will keep cattle cleaner than any other bedding I know of. It also makes the manure fine and mellow, so that it spreads more evenly and mixes with the soil more like composted manure. I also use it in the hen house for filling the nest boxes, and on the floor to mix with the manure, as it absorbs all the ammonia and prevents the manure from sticking to the floor. For summer use it is not as good as dry dirt or sand, in the hen house, because it tends to breed vermin, unless cleaned out and replaced by a fresh lot quite often. A small quantity of it thrown into the privy vault will absorb all bad odors arising therefrom in hot weather. It is also one of the dryers to mix with superphosphate. It makes it fine so as to handle well. I do not think sawdust is very valuable in itself as a fertilizer, yet it must be worth something. If it has no other value, it contains all the saline properties found in wood ashes, as well as some nitrogen, but the elements are in small quantities and in a form which is unavailable for immediate use. Sawdust contains more nitrogen than straw, but less potash and phosphoric acid, and is probably not as good as cut straw for bedding or manure, but it is a better absorbent of bad odors, and is usually cheaper than cut straw. I believe its mechanical effect upon the soil is excellent, especially to lighten heavy clays. Professor Johnson has said that 'fresh sawdust in light, thirsty soils tends to increase their water holding capacity. In sticky clays it lightens the texture and soils that form a light crust after rain, it prevents, like other mulch, such puddling and baking of the surface.' I think a cord of sawdust, well saturated with liquid manure is worth as much if not more than a cord of solid manure."—*The Farmer's Advocate*.

ENSILAGE.

The following items we clip from the *Country Gentleman*:

SILLO WALLS.

Mr. Bailey says that silos cannot be successful unless compact cement walls and floor line them. We have proof of the contrary in ours. The floor is the bare soil, and less than one inch of the ensilaged fodder in the bottom is decayed. This proves that good silos can be obtained by digging trenches in good, compact, dry soil, without either wall or board linings. The knowledge of this fact will undoubtedly be very valuable to many of your readers who have not the means to construct expensive walled silos, but can find a dry, compact, hard soil to dig a good trench in and pack their corn fodder into it. We would not hesitate one moment to entrust our fodder to such a trench. Of course, for permanence a walled silo will be better, and the fodder on the sides will not run the risk of being more or less mixed with soil; but the first cost is in many cases such an important point for us farmers, that this knowledge will be important to many.

L. A. G.

Spring Farm, Rockland Co., N. Y.

A SILO IN KENTUCKY.

Our farmers did not get in a full crop of wheat, owing to an early and inclement fall, but fully three-fourths of a crop was sown. I built an experimental silo last summer, sixteen feet square and twelve feet deep, in a red clay soil and did not wall it with stone. The silo is inside of tobacco barn. I filled it one-fourth full of cut corn, and twenty 2-horse wagon loads of cut clover, fresh from the field; and as my corn had begun to get hard, I put in thirty wagon loads of the tops of corn cut up in half inch lengths. I weighted it down heavily with stone upon 2 inch timbers. I opened it December 22, and found it in perfect order. I have, since that day, been feeding the top corn to twenty-five head of steers and they are doing finely upon it. I sprinkled a little salt over it as we put it in, and think it was beneficial. Another year I expect to build another silo, forty feet long, sixteen feet wide, and twelve feet deep. I will build this in my sheep barn. I have 500 head of sheep—mostly full blood Cotswolds. I

had over 100 lambs dropped by Jan. 1.
Logan county, Ky. N. LONG.

At the ensilage convention in Worcester, Mass., in March, at which many New England men who had experimented with silos, and some New Yorkers were present. Dr. J. M. Bailey, of Winning farm, Billerica, said silos may be built above or below ground. In the ripening grain the nutritive acme is to be found at or before the time of blossoming, as it is in the grasses. Green grass and other forage crops contain over eighty per cent. of water; in the process of curing by drying, about seventy per cent. is evaporated. This water carries away with it a large amount of valuable nutrition. That which passes off is just what makes the difference between June butter and winter butter. Upon his farm at Billerica, on which by the old process he was able to sustain but six cows and one horse, he has to-day 25 head of cattle, 140 sheep and 60 swine. When the green fodder is put in the silo, it cannot be packed down so closely but that some air will remain in the interstices between the pieces, which immediately starts a fermentation. This is arrested for want of oxygen, in its incipient stage. None can get in from the top; for the compression which is constantly going on is all the time forcing the gases out, and where there is ever so slight a flow out none can pass in. The changes taking place in the contents of the silo are understood to be as follows: The oxygen of the air in the mass, acting upon the sugar in the plant, converts that sugar (in corn about 11 per cent.) into acetic acid; the acid acts upon the starch (in corn about 56 per cent.) and converts it into grape sugar or glucose, in much the same manner as sulphuric acid acts upon corn in the manufacture of glucose. The presence of acetic acid, so far from being an injury is a positive benefit, for without the acid, the starch, which is hard to digest, could not be converted into sugar, which is easy to digest. James S. Chaffrey, of Wassaic, N. Y., said his home was in the milk producing district which supplies New York city. He thought the process of steaming fodder very good, but on the whole ensilage was much better. He gave his experience with a silo of 10,000 cubic feet capacity, and claimed that he had increased the flow of milk two quarts a day for each cow, and the milk was pro-

nounced superior to that from any other method. His cattle eat the ensilage in preference to other food. The average cost of the fodder when put in the silo is \$2 a ton, and the building of a silo is put down at \$10 a square foot. S. A. Newton, of Auburn, Mass., also estimated the cost of raising, cutting and storing the fodder, at \$2 per ton, and thought that from two to three tons of ensilage was equal in value for feeding purposes to a ton of the best hay that could be raised.

What Wm. Crozier, of Northport, Long Island, says *against* ensilage:

"It is said that sixty pounds of silo fodder, of a value of not over four cents, will feed a full grown cow for 24 hours. How much of this is solid food? I think you will not find it equal to twelve pounds of my cured corn fodder. Now, will a cow of 1,000 pounds live on 1½ per cent. of her live weight? Will this animal produce milk, cheese and butter in amount equal to those given by cows fed on 30 cents worth of corn, oil cake or cotton seed meal, mangold wurzel, cured corn fodder, etc.? My practice is to cut the corn fodder in winter, when horses and men have little to do, and let the cattle use their own judgment as to how much they require. The cotton seed, oil cake or corn meal, which is added by the silo feeders is what gives us the returns. I fear many silos will be built and forsaken."

Corn Stalk Sugar.

At a recent meeting of the American Agricultural Association of this city, Dr. Peter Collier, chemist of the Department of Agriculture, at Washington, stated that during the past year there have been examinations made of 38 varieties of sorghum grown in and received from 14 different States, and from 9 varieties of Indian corn. The results of analyses made, 1,319 in all, of the sorghums, showed them to yield on an average, 1,662 pounds of available sugar. From four of these varieties the sugar was extracted in quantity, and at a rate of fully 2,000 pounds per acre. As to the corn-stalks, the results were most satisfactory, but the experiments were not so numerous as with the sorghum. An average of twenty-six analyses of the nine va-

ries examined, showed them to contain in their juice an amount of sugar greater in quantity than the average of the best thirty specimens of the sixty specimens of sugar beets grown in different parts of the country. After a large crop of ripe corn had been gathered, the stalks yielded at the rate of 900 pounds of sugar to the acre, and there appears no reason to doubt that this result could be obtained upon a large scale.—*Scientific American*.

The Difference.

In England, the cost of raising a bushel of wheat is in round figures \$1.50. From a number of records kept in Minnesota and Kansas, the average cost per bushel, counting all material, labor and interest on investment was about forty-five cents per bushel. This will explain the reason why we can bring from the far West, at heavy cost of freight, to the seaboard, and ship our wheat to Europe, and undersell the farmers of England in their own ports and still have a handsome profit.

POULTRY HOUSE.

About Improvement.

We would like to say something to those farmers who believe it necessary to give up their old favorite barnyard stock in order to get "fancy fowls." The term "fancy fowls" is merely applied to denote something better than the average common stock rather than fancy in price or color. The most useful breeds are styled fancy, but they are kept because they are profitable, both with eggs and market chicks. If such persons cannot afford the price of a trio, or a pair of some good breed, then let them improve their stock by purchasing cocks for that purpose.

If a pure, full blooded cock is introduced among a flock of common hens, the chicks will show a greater resemblance to him than to the hens, and so strongly does the blood of a pure bred male predominate, that even to the third and fourth generations it is easily seen. Now, such marked influence on the shape and plumage indicates that the habits and propensities are equally as well impressed by the male, and the character of the flock, in two or three

seasons, will be completely changed. Indeed the first season gives most wonderful results.

A farmer should use his judgment as to the kind he should keep. If his hens are diminutive, and market chicks are an additional desideratum, the Plymouth Rock, Cochin, Brahma, Dominick, or American Sebright would make an excellent cross with his stock, but if he is not particular about size, and wishes an increase in the production of eggs, then the Leghorn, Hamburg, Houdan or Black Spanish will suit his purpose.—*Farmer's Magazine and Rural Guide*.

The Dominick is a better bird than many have any idea of. The hens lay early and the chicks grow fast. It is a splendid fowl to cross on the Cochin or Brahma, and for market, the Dominick is but very little, if any, inferior to the larger breeds.

Where a few fowls are kept on the suburbs of cities, a lath partition lengthwise the yard, will enable you to sow grass seed, and by changing them from one side to the other they will have all the green food they need, and if given their regular meals along with it they will do well.

The Bantams are nice little pets for the children. Give your boy a pair and teach him how to manage them. It will interest him, and hereafter the little he will have gained by his attention to them may be of great benefit.

The Plymouth Rock crossed on hens that are half Houdan and half Partridge Cochin give the best results. Mr. Jas. L. Wright, of Philadelphia, had a chick from this cross that weighed four and a half pounds, at three months old.

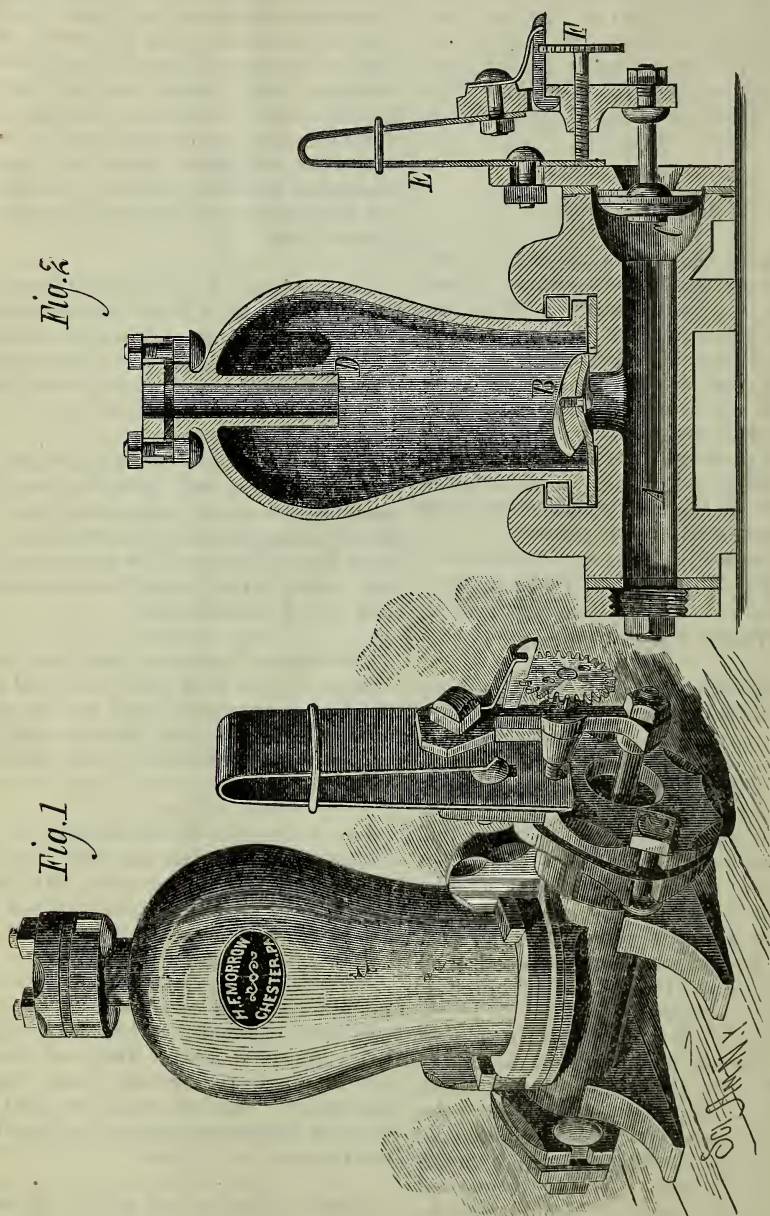
The Dorking is a favorite in England, where it is claimed that they have no superior as a table fowl. They are remarkable in possessing the fifth toe, a useless appendage. The cross of this fowl with the dark Brahma produces the largest and best capons.

Boiled cabbage and potato skins are highly relished by laying hens.

Onions are a regular delicacy to all kinds of poultry.

IMPROVED HYDRAULIC RAM.

The hydraulic ram is one of the simplest and most desirable devices for raising water where a fall of a foot or more is available, providing its construction be such as



to insure continuous and uniform action under equable conditions. A ram which seems to embody every essential feature without being unduly complicated is represented by the above engraving, in which Fig. 1 is a perspective view showing the exterior, and

Fig. 2 is a vertical section showing the interior construction.

The base of the ram has a horizontal passage, A, with a discharge valve, B, at the top, and an overflow valve, C, at the end. Covering the discharge valve there is an air chamber, held in place by keys or wedges, and furnished with a discharge pipe at the top, which projects a short distance downward, and serves the double purpose of a discharge for water and an escape for the surplus of air in the chamber. One of the greatest troubles with all rams, aside from this one, is the gradual increase of water in the air chamber until the chamber is filled and the ram stops. The ram shown in the engraving airs itself, and drives off with the water any surplus air when the quantity is more than sufficient to fill the space above the lower end of tube D.

The discharge valve, B, is attached to a flap formed on a disk of leather, which also forms the packing of the lower end of the air chamber. The valve is concaved to receive the head of the rivet or bolt which secures it to the leather, and the leather touches the valve seat a short distance from the edge of the valve opening. By means of this construction, the valve is always kept free from ridges, and whether or not it always strikes exactly in the same place, it is always tight.

The overflow valve, C, is hung upon a casting attached to the lower end of the spring, E, and its stroke is regulated by the screw, F, which bears against the body of the ram. The screw, F, carries a toothed head which may be secured in any desired position by a stop or pawl. This construction admits of regulating the overflow valve the $\frac{1}{8}$ part of an inch, and effectually prevents it from jarring out of adjustment. The valve can be regulated to make from 30 to 300 strokes per minute, and the ram may be adjusted so delicately as to raise water 10 feet on a 9 inch fall, or it may raise water 200 feet, with less than 4 feet fall. For irrigating lands, supplying dairies, farms, barnyards, dwellings, factories, engines, railroad stations, villages, etc., this ram is invaluable, as its extreme simplicity enables it to be set up or repaired by any one likely to use it.

This improved form of hydraulic ram is the invention of Mr. H. F. Morrow, of Chester, Pa., who has a patent for it and an application pending.

HORTICULTURAL.

For the Maryland Farmer.

The Vegetable Garden.

Every well regulated household should be possessed of a good vegetable garden; and much is meant by the word *good*. A family may have a garden and still be but little better off than if destitute of one. The great object of a vegetable garden is to be enabled to enjoy the best of all kinds of vegetables, as soon as they can possibly be produced, and then by judgment in planting, continued through the whole season.

One important point in the growth of all kinds of products of the garden is, to grow them as rapidly as possible, in this way as a general rule they are much tenderer and sweeter.

In order to have a good garden the first consideration is the selection of a locality, one that combines both advantages of soil and such exposure as will insure an early working in the spring. While the soil should have a proper amount of moisture it should not be in excess as to remain cold in the early spring; If any such tendencies exist they should be removed by proper drainage. No advantage is ever gained in attempting to work a soil that is so moist that it will not pulverize under the plow; when it will turn from the plow smooth and compact it is very likely to bake in the sun and so render all future cultivation much more difficult, besides being in a condition least adapted to the fertilization of the plants.

The next important point is fertility; without this, the attempt to have a good garden may as well be abandoned. But in this direction there need be no trouble, because, if the soil is not in that high state of fertility that is desirable, it should be made so, which is possible, even though no animals are employed in the production of manure. This frequently occurs in the case of tenants with only a little tract for a garden, and it may be of value to such, to know how to proceed. The case becomes more plain when it is stated that the claim is made, that the matter evacuated by a full grown individual, in the course of a year, including solids and fluids, is sufficient to grow an acre of corn. This may appear extravagant, but at the same time,

if measures are taken for saving *all*, in an ordinary family there would certainly be enough to insure a bountiful success.

To the question, how, it may be answered that in the first place the privy should be provided with a vault sufficiently large to not only hold all the regular deposits, but dry earth sufficient to absorb all moisture, and to aid in the general decomposition of the mass. It may also be advisable to make use of it to secure the urine and slops from the chamber, although if the garden patch is near, this would be unnecessary, because it could be deposited regularly upon the surface, and would in the growing season of the plants, aid in the moisture furnished the roots.

In the winter it could be absorbed by the soil, ready to act when the plants commenced their search for fertility. A farmer who has been in the habit of growing onions every year, completely fertilized a piece of ground by spreading the slops from the chamber evenly upon it. In the early spring, as soon as the soil is ready it should be thoroughly plowed, and then let the composted night soil be spread evenly over the surface and worked in with the harrow. At all times the effort should be made to secure as perfect pulverization of the soil as possible; very much of success depends upon this one point; it is a question whether it would be better to have a pulverized soil with less fertility, or a fertile soil, poorly pulverized; for ease of cultivation the best pulverized would be far preferable. Of the variety of vegetables grown in a kitchen garden, each family must be the judge, for the reason that tastes differ, and with the great number at present offered for sale, there is little difficulty in making such selection as is most desirable. Having done this, the next step is to arrange for the locality of each variety, taking into account its manner of growth and its want of the direct rays of the sun. It not unfrequently occurs that a plant that succeeds well when fully exposed to the sun, will entirely fail if shaded from its rays.

W. H. YEOMANS.

Columbia, Conn.

[To be continued.]

Good feeding makes large size, promotes laying, and beautifies the plumage of all kinds of poultry.

Horticulture in Maryland up to 1880.

BY JOHN FEAST.

[Continued from page 120]

"BOLTON" is an old landmark of Baltimore city, occupying, with its grounds, a whole square, in which is the large, old mansion, with many very old forest trees, among which is the English elm, and one of the finest specimens of English beech in the United States. This famous property is now owned by Mr. W. W. Spence, who has improved it with a fine range of houses for plants, erected by Lord, of New York. These houses are filled with a large and choice collection of plants that will compare favorably with any other collection in Maryland. The grounds are ornamented with flowering trees, evergreens, shrubs and rhododendrons in clumps, besides flower borders artistically arranged. The gardener in charge is I. Erehart, whose skill in horticulture is acknowledged by all visitors to this remarkable place.

Mr. George Wäesche, on Lexington St., Baltimore, has a nice little place. Mr. Geo. Maund pays much attention to the garden and is a connoisseur in flowers and plants.

Among the best ornamented homesteads around Baltimore, of less notoriety than those I have heretofore mentioned, are those of Mr. Cator, of Chestnut Hill; Mr. Devries, near Pikesville; Mr. Wm. B. Sands, on the Northern Central Railroad, near Swann Lake; Mr. Frebne, two miles north of the city, being the place once owned by Mr. Pearce, and then famous for its small fruits; the estate of the late Ed. Wilkins on the old Frederick road; and the late Mr. Galloway Cheston's home on the Windsor road, where the best rhododendrons and the best Belgic varieties of azaleas are to be found in this region.

In my next I shall speak of professional florists.

[We must add to these pleasant notes of Mr. Feast, a word about the pretty gardens, and cheap, yet well filled green houses which the Baltimore and Ohio Railroad Company maintain at their Viaduct, Queen City and Deer Park hotels, for the gratification of the public travelling along their great road. The romantically situated grounds at the Viaduct Hotel, at the junc-

tion of the Washington city branch with the main stem are beautifully kept by their employee, Mr. Burns, whose taste and skill is admired during the summer by the thousands of travellers that pass this rarely beautiful spot, which is an artistic gem that nature and art have combined to make unsurpassed by any other place along the entire length of this gigantic pioneer of American railroads.—EDS. MD. FAR.]

Large Yield of Tobacco.

The following letter will be read with interest by all growers of this great staple. Seeing in the *Port Tobacco Times*, a notice of a large yield of tobacco on a small piece of ground, raised by Mr. Wills, of Charles Co., Md., we wrote to him asking for particulars. It will be seen that he responded promptly, although too late for our April number. The letter explains itself in just the way we like and are sure some of our readers will like also. It confirms our long maintained theory, that the old system should be abolished in Southern Maryland, and in all the old sections of the country, where tobacco once was the special crop, and the new system adopted, by which, one acre can be made to produce as much weight of leaf as three acres did formerly, and the product of one acre, in money, nett profit as much as four acres or more under the old regime, and the old way of planting largely on their land, with the full expectation of half of it being food for the worms, besides the triple labor in working and all other necessary attention before it got to the house. We trust this experiment of Mr. Wills may induce hundreds of our planters to curtail their crops this year, and thereby save time, save labor, save land and save money, at the same time enriching each year the number of acres devoted to growing tobacco. If this be done, our farmers of Southern Maryland will no longer say "we must give up to-

bacco, nothing is made by it." but will find that it is a money crop and the growth of it will not so interfere with other crops and the raising of stock, as to preclude a general diversity in the forms of farm productions and profits, as was the case, and is now too often the case, where large areas of tobacco is grown to the exclusion or sacrifice of every other industrial operation which should be carried on to make farming pay. No special crop in these days can be relied on to pay year after year. It is poor business to rely upon cotton, wheat or tobacco, and buy all the meat, breadstuffs, and perhaps corn and hay for all the cattle and horses.

"ARABY, Mar. 19, 1881

"* * * It has been my impression that tobacco could be made to average a pound to the plant. Last year I selected a corner of my corn field for the purpose of experiment, with the result which you saw in the "*Times*," of 1625 lbs. from 2000 plants. Many plants were injured by stalk worm which caused it to dwarf; had it not been for that I think the result might have reached the 1 lb. to the plant.

The field from which the corner for the experiment was selected had been a wheat fallow the previous year, without fertilizer. Such land with us is selling for \$25 to \$30 per acre. The soil is a heavy loam and will produce about 10 barrels of corn per acre.

I measured off 90 yards by 40 yards. Spread thereon 20 ox-cart loads of good stable manure, and plowed it under to the depth of 6 or 7 inches. The middle of April, harrowed, rolled and harrowed again. Re-plowed the third week of May, not so deep as at first, harrowed well and laid off 4 feet each way, and made hills with the hoe. Planted the 29th of May, and replanted several times to get a stand. The cultivator was run each way, then over with the hoe. Plowed each way, with four furrows, from and back to the plants each time, and finished with the cultivator the 1st of August. The plants did not start to grow as readily as desired, but when they did they moved rapidly. Topt about the 10th September, to from 6 to 18 leaves to the plant, according to size, the most forward just showing the seed. The ground

leaves were gathered and constituted part of the yield. Housed the last of September, fully ripe, cured quickly, stripped and sold before New Year, at \$6.50 per hundred, in the county, to one of our buyers, who immediately prized and shipped it to Baltimore. The leaves measured 34 inches to 39 inches long, and 20 inches to 26 inches wide. Was dark and coarse. The kind—the result of mixing several kinds seed. \$15.00 will cover all expense of labor.

CHAS. H. WILLS.

THE CORK OAK.—Reports to the Department of Agriculture from the Southern States are very encouraging as to the success of an experiment started twenty-five years ago—the growing of the cork oak, a native of Spain and northern Africa. Seed was distributed about 1850, among some southern planters, and the first crop of oak bark has lately been taken from the trees, which are growing thriftily in South Carolina, Georgia and the States bordering on the gulf. The tree is an evergreen and not unlike the live oak. The bark is stripped off as hemlock bark is, and once, in from twelve to fifteen years. The older the tree the better the bark. It is steamed and pressed to close the pores before being sent to the manufactory.

ONIONS.—What we read about onions, we give below, believing that it will be a means of stimulating the increased product of a vegetable so contributive to the general health, and furnishing a cheap cure for many complaints that too often are supposed to be necessary for a doctor and other expenses, when the quicker and pleasanter remedy is in the pantry, or to be had from market at a trifling cost.

An exchange says: "Onions are an unfailing cure for diptheria. They must be placed in a bandage in a raw state, and then beaten into a pulp, juice and all, bound around the throat and well up over the ears. In cases noticed, the result has been almost magical, deadly pain yielding in a short time to sleepy comfort.

Another exchange says:—"The healthy properties of onions have never been fully understood. Lung and liver complaints are certainly benefited, often cured by a free

consumption of onions, cooked or raw. Colds yield to them like magic. Don't be afraid of them. Taken at night, all offense will be gone in the morning, and the good effects will amply compensate for the trifling annoyance. Taken regularly, they promote the health of the lungs and the digestive organs. An extract made by boiling down the juice of onions to a syrup and taken as a medicine, answers the purpose very well, but fried, roasted or boiled onions are better. Onions are a very cheap medicine, within everybody's reach, and they are not by any means as "bad to take" as the costly nostrums a neglect of their use may necessitate.

ROOT CUTTINGS.—As a general rule, all plants that throw up sprouts and suckers from the roots, are readily multiplied by carefully taking up the roots and cutting them into pieces two to four inches long; these are then planted in drills, covering from one-half to one inch deep, when they soon develop buds. Each piece of the root forming a plant. *Pyrus Japonica*; the Raspberry, exclusive of the blackcaps; the Blackberry, and sometimes the Plum, Cherry, &c. are propagated in this way.—*Jenkins' "Art of Propagation."*

[It will do to plant root cuttings until the last of June.—EDS. MD. FAR.]

THE SUNFLOWER.—This plant is valuable, especially in swampy and malarious districts, on account of its absorption, both from the soil and atmosphere of a very large amount of moisture. It is the evaporation of the moisture that is charged with the gases emanating from the fermentative decomposition of street sweepings and garbage, that causes the diseases due to air charged with such vapor when inhaled. An average sized sunflower plant will give off twenty ounces of water in twenty-four hours, all of which it must derive from the soil and the air. It has, therefore been planted with great success in very many cases to counteract such malarious effects. It also shades the ground and thus prevents the rapid evaporation of injurious vapors.

In addition to this, the produce of the crop is valuable if properly managed. The average yield of seed is about fifty bushels to the acre, yielding one gallon of oil to the bushel. This oil is good for table use, for

lamps, and for the manufacture of soaps. The yield of refuse after the oil has been expressed, is about 1500 pounds per acre, and makes excellent food as oil cake for cattle, or good manure. The stalks when burned for alkali, will give ten per cent. of potass, and it has been lately stated that they will give a large amount of fibre useful for textile purposes or for paper making. The seeds are also an excellent food for poultry, who, are are very fond of them.—*The Country Visitor.*

SALES OF TOBACCO.—Mr. Barnet Clark, living near Forest Hill, recently sold, in Lancaster, Pa., his crop of tobacco from five acres, for about \$1,400. Mr. Alloways, a farmer who lives in the lower end of York county, Pa., sold the tobacco raised on 2½ acres for \$705. Encouraged by the success of those who were engaged in growing tobacco last year, a large number of farmers will plant tobacco this year. They will nearly all plant on a small scale, not many of them having facilities for curing a large crop of tobacco. *Aegis, Harford Co., Md.*

THE DAIRY.

For the Maryland Farmer.

Breeding Dairy Cows.

NUMBER ONE.

It is a common remark here in Ohio, that one cause of the falling off in the aggregate amount of milk received from the dairies, as compared with twenty-five or thirty years ago, is due to the fact that there is a great deterioration going on in our pastures, and that with this and other conditions being equal, the cow of the present would be as good as those of the past. It may be that there is much truth in this, for not one pasture in a hundred ever received a load of fertilizer, and this depletion going on for three-fourths of a century, has made it impossible for the cows to give the quantity of milk they once did. It is more than likely that with all our grain findings, warm stabling and biscuit and

butter attention, the cows are not being as highly fed as when they grazed in the new "slashing" pastures, and wintered upon an abundance of the bright hearty hay, free from foul growth that our meadows now bring us.

One reason why cows fail in approaching old time quantities is, that now grain is usually fed through the winter to enable the farmer to make his hay hold out, and in the summer the grain is withheld, a thing radically wrong, for the grain stimulus should be given when in milk, and when "dry," the cow should rest, and the system that has been drawn upon, and organs taxed to supply the want of the milk glands, should be freed from a continuance of this demand and be allowed to relax and again assume a normal condition prior to their being again called into action.

To do this best, cows should be fed alone upon plant and root food during the winter, assuming that that is her resting spell,—and the grains withheld. The heavy grains such as corn, and that is the cow's one grain in this State, are heating, unless the cob is ground with it, which it should always be, and has its effects upon the milking organs to their often loss, for then the stimulus given to the milk glands from its continually arriving force, and a fevered state of that organ is likely to result, so the only safe plan to feed strong foods is during the time of milk.

Be all these conditions as they may, the things of the past have gone and a new condition of things has to be encountered. The methods of dairying have changed, breeds of cows that once existed have gone, and the farmer's native cow that eat the rich grass of the new pastures, and gave fabulous quantities of milk has disappeared, and to get back to their likes is a study that the farmer has got to make, and in better farming and the breeding of races strains of milking stock must be the answering of the problem. That cows can be bred for milk and success achieved outside of farmers breeds of thoroughbreds is possible, and that a few dairies do now give double and triple that of others, is a satisfactory proof that all dairies can be brought up to a high standard, and "the how" is the purpose of this and future articles upon this subject.

J. G.

OHIO, April, 1881.

For the Maryland Farmer.

CREAMERIES.

As the rural districts get settled up, and as the population gets denser, the demand for corporations and co-operation becomes more and more apparent and profitable. Farmers, as a class, have not been very quick to appreciate this fact, for they have been satisfied to move along in the "good old way," until they have been forced to look things squarely in the face, the advent of the numerous labor saving machines and implements and the facilities for rapid and cheap transportation, having thoroughly opened their eyes to the fact that they must in a great measure, leave the old ways and conform to the new, or else be badly distanced by their more enterprising neighbors.

Within the last few years, creameries have been established in many sections of the country, and many more are in contemplation; and it is due to the excellent creamery system of making butter that the average quality of the butter found in the large markets of our prominent cities has been so noticeably improved. The majority of our farmers do not have the conveniences and appliances which are absolutely necessary to make a high priced and desirable quality of butter.

They may have good butter cows, and may understand how to make good butter, but if the conveniences and appliances are wanting, they will fail to accomplish their object. The West has been more disposed to try the creamery system of butter making than other sections of the country, although the nearby South is now advocating and adopting it. It is a fact that the average quality of the butter made in the South is considerable below par, owing to a want of knowledge, in many cases, and to the climate and to having no place to keep the milk, cream and butter properly in other cases. Right here is where the creameries would prove valuable and profitable. The way many of them are conducted is, for a few men with a moderate amount of capital to put up the necessary buildings. The fresh milk is either brought to the creameries and sold at a fixed price per gallon, or else tickets are issued for the amount of milk brought in and the farmer participates in the profits, the latter way invariably proving the best for the farmer.

There are many sections in this State where creameries would pay both the farmer and the proprietors well, if conducted properly and on strict business principles. E. Jr.

Pure Milk.

An effort to furnish pure milk to Boston by farmers in the neighborhood, has resulted in forming the Massachusetts Dairy Company, with a cash capital of \$50,000 and the privilege of increasing it to \$200,000. This company will receive milk in Boston, from producers and distribute it to customers, making what surplus there may be into butter and cheese. The chairman of the State and city boards of health are to be members *ex officio* of the board of directors.

[Why should not Baltimore and other cities follow the above noteworthy example? Is it that milk is not adulterated by the vendors after it comes fresh and sweet from the country dairyman? After its manipulation by the middle men and their employees, the dairyman who sent it from his rural home would never recognize it as the article he shipped at four cents a quart, although told that it came from his dairy that day, and cost the consumer 8 or 10 cents per quart. Sellers of milk in the country, look to your interest, combine and establish a company upon the Boston plan.—EDS. MD. FAR.]

FEEDING COWS.—There is one matter concerning the feeding of cows that is rarely, if ever, thought of by dairymen, and that is overfeeding the animals. Overfeeding produces indigestion. No other animal has so sweet a breath as the cow, when her stomach is in a perfectly healthy condition; but if she is overfed, so that in place of digestion, decomposition takes place, then her breath is charged with offensive gases, and the milk decreases in quantity, acquiring a flavor neither desirable in butter nor in cheese. It not unfrequently happens that some weed or other in the hay is charged with the evil, when the real cause is overfeeding. This is as true of the human as of the animal.—*Exchange*.

The MILCH ZEITUNG relates a recent experiment by Fjord: "A quantity of fresh milk was divided into three portions, one of which was set in ice water at once; the other two were allowed to cool an hour by standing at ordinary temperatures, and one of them was then set in ice water; the third portion was carried in a wagon for three hours before being set in ice water; all the samples were allowed to stand ten hours. Calling the quantity of butter yielded by the first portion of milk 100 parts, the other two gave 70.3 and 73 parts, respectively; or, in other words, there was a loss of 29.7 and 27 per cent. of butter in the two cases mentioned as compared with what should have been obtained, if these two portions of milk had, like the first, been put in ice water at once. The loss was not in all cases so great as this; but the fact that it may occur, and may, under certain conditions be so serious, is well worthy the attention of the managers of creameries; and no less worthy of their consideration is the simple method discovered by Fjord, of almost entirely avoiding this loss, which consists in heating the milk as soon as received at its destination, up to about 104°. In the warm season the milk may be cooled as soon as drawn, so as to be delivered in a fresher condition at the creamery, where it may be warmed as above. These experiments also yield the important result, that with a good centrifugal creamer, no notable loss of butter was caused by this partial cooling of the milk before delivery; so that re-heating the milk is unnecessary when this method of separating the cream is followed."

The Brazilian Artichoke.

A correspondent in the Live Stock Journal furnishes the following extract from a circular by the Hon. D. A. ELY, of northern Missouri, who has made a success with this species of artichoke.

In his circular he says: "Prepare the ground by plowing eight to ten inches deep, thoroughly pulverizing. The richer the soil the better. Mark off the ground one way the same as for potatoes, three and a half or four feet apart; plant in drills 15 to 18 inches apart, one eye to the hill. No cultivation is necessary unless the person planting wishes to destroy any grass or

weeds that may be in possession of the soil; then, when the artichoke is about three or four inches, run through with a cultivator or sweep, thoroughly twice, leaving surface smooth as possible.

"If the seasons are good, that is, if there is plenty of rain in July and August, the artichokes will be large enough to turn hogs on in September, but if there has been a dry summer, turn on in October the same year of planting. Allow hogs to have free access till the ground is frozen, and again on the same field in the Spring—from the time the frost is out of the ground until the first of (May) June. Twenty heads of hogs may be kept on an acre during the time mentioned, without other feed, and do well. When the hogs have been taken off the field, preparatory to allowing another crop to grow, the ground should be made smooth by harrowing, so that the tops may be mowed next fall, if desired. When the above instructions are followed the artichoke will replant itself, as there will, in all cases, be enough seed left in the ground for planting. The Brazilian artichoke will produce the largest of any crop known, and costs less to produce and harvest, the average crop being from 400 to 800 bushels per acre. It takes three bushels to plant an acre. The customary price is \$1.50 per bushel.

YOUNG CALVES.—Young calves will thrive well if kept in a shed together and well fed. The shed may be littered liberally, and need not be cleaned out until the spring, or until the manure has become a foot or more deep. Calves may thus become good manure makers, but it will be necessary to feed them well. Bran and oats, with a little corn will be the best food for them. Give one pint a day, for those under a year, and a quart or two, daily, for yearlings. Costiveness in cold weather should be carefully guarded against, and, if necessary, half a pint of raw linseed oil, or a pint of linseed meal should be given with the food as a remedy. Flax seed ground and mixed with corn or oats ground or unground, is a good appetizer, and keeps the calves in good condition. While on milk, whether sucking the cow, or on the pail, let it suffice for drink. No cold water in cold weather.—*Breeders' Live Stock Journal.*

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Horticulture and Rural Economy.

EZRA WHITMAN, Editor,

COL. W. W. W. BOWIE, Associate Editor,

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BALTIMORE, MD.

BALTIMORE, MAY 1st, 1881.

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☞ It will not be necessary to secure the subscribers all at one time. For instance, if any one wants the Mill we offer for 80 new subscribers, he can send the names in any number he chooses, and we will allow him a whole year to finish the club.

☞ COL. D. S. CURTIS, of Washington, D. C., is authorized to act as Correspondent and Agent to receive subscriptions and advertisements for the MARYLAND FARMER, in the District of Columbia Maryland and Virginia.

☞ Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

Works of Art—Free.

With the Maryland Farmer for 1881.

Any new subscriber who sends \$1.50 will receive the MARYLAND FARMER for one year and his choice of either one of the splendid pictures as advertised in this number with miniature wood cuts, which however, give only a poor idea of the beauty of the engravings in the new style of art, which far surpass any chromo as objects of art. Any person sending \$2.00 will get the Farmer and both pictures as advertised. This liberal offer is also extended to every old subscriber who pays up his arrears and adds thereto 50 cents for one picture, or one dollar for the two.

"Everything worthy of the name of *Picture* has a soul and body. Canvass, paper, color or contour are the one; the idea that shines through them and invests them with life and glory and reality is the other. Where the soul is wanting, however perfect the body, the picture does not speak pleasantly to the soul of the beholder. The works of art we offer our readers are full of 'soul,' enshrined in good body."

PERCHERON HORSES IMPORTED FOR MARYLAND.—We had the gratification to view twenty specimens of the French Percherons, lately imported by our enterprising citizen, W. T. Walters, from France, for the improvement of draught and quick carriage horses in this country. We were well pleased with the general appearance of them, and particularly so with some. Such efforts on the part of our wealthy citizens to improve our equines for every day purposes are deserving of the highest commendation, and should meet with a corresponding support and hearty recognition on the part of our farmers, who may desire to breed horses of such character, as will enable one horse to do the work of two, at half the cost of keep of the two. These horses travel faster with heavier loads, on

the same fare, than any other breed we have any knowledge of. They are docile, heavy, powerful and healthy, and really are near perfection, either as roadsters or heavy draught horses.

THE Improved Hydraulic Ram, which is illustrated and explained on pages 144 and 145 of this number, can be seen at the office of the MARYLAND FARMER.

THE Honorable R. M. McLANE has our thanks for the report of F. B. Hough, on Forrestry, prepared in 1877. Also for the Report of the Commissioner of Agriculture for 1876.

The managers of the Pennsylvania State Agricultural Society have decided to offer premiums to the amount of \$28,000 at the coming fair.

THE DEER CREEK CLUB SALE—Took place at Bel-Air, on the 5th of April, after one postponement. It was not such a success as so laudable an enterprise deserved, in consequence of the inclemency of the weather. It was, however, sufficiently encouraging to warrant the hope that these periodical sales will be continued and the example followed in other parts of the State.

WE call special attention to the "CONE PRESS," advertised in our journal by the Cone Press Co., as one of, if not the best baling press now in use. Mr. Joseph Perry, of Boston, writes about it in high praise, saying, "it gives me more satisfaction than any press I ever used. It works quicker and better than any other press now in use. The first day I used it, I put up alone with no help, a bale weighing 650 lbs., in fifteen minutes, putting on the hoops and taking it out of the press. It is the best press made, in my opinion." It is intended for hay, cotton, rags, etc.

THE "WOODBERRY NEWS."—"This spicy Journal comes to us this week, enlarged, and otherwise improved. It has abandoned its eight page form and has fallen back on its original four page shape, which, we think is much more convenient. The *News* is one of our favorite exchanges. We wish the proprietors abundant success."

[We endorse every word of the above from our esteemed exchange, the *Frederick Examiner*, and add our best wishes for the private and editorial success of brother Morling, of the Woodberry News.—EDS. MD. FAR.]

New Publications Received.

HENDERSON'S HAND BOOK OF PLANTS, by Peter Henderson, received from the publishers, Peter Henderson & Company, 35 Courtland St., New York. Mr. Henderson is the author of several very valuable books on Horticulture and Floriculture, and a writer of popularity on such subjects, but we think he has done more service to florists, gardeners and to general readers, in compiling this work, than either himself or anyone else has done ever before. This is an Encyclopedia, wherein the common names and the botanical names and the succinct history and character of each plant, fruit, flower and vegetable, are given in alphabetical order. In a word, it is an admirable, carefully prepared dictionary of all the important and minor plants and flowers that are known at present. It is comprehensive, yet compressed in as small space as possible. It, in our judgment, meets a great want and must be read to be fully appreciated. It should be bought by every man or woman who is not a thorough botanist. We confess our great obligations to the author for preparing a work which is a splendid compendium of indispensable information, furnished in pure style and in convenient form. We cannot commend it too highly. It is a *vade mecum* for both the scholar and the uneducated. By a thorough acquaintance of this admirable work, everybody may become familiar with every plant, flower, fruit or vegetable he daily meets with. It is a world of pleasant read-

ing and valuable information, for which Mr. Henderson deserves the gratitude of every unscientific horticulturalist. The glossary of botanical and general horticultural terms and practices, with synopsis of the natural orders, &c., is a most important and useful portion of this desirable work.

BRIEF ESSAYS ON NEW FRUITS, ORNAMENTAL TREES AND PLANTS, by C. W. Barry. This small pamphlet we have received, and it is one of the most valuable and well prepared compilations yet put before the public, for the information of every grower of small fruits and ornamental plants.

H. R. STEVENS, ON ENSILAGE.—Is the title of a neatly printed book of 120 pages, price only 50 cents. We return thanks to the author for a copy of it, just received. It is a well written argument in favor of ensilage, and an extensive compilation of fact and experiences of practical farmers with silos and ensilage. Beyond doubt, the most satisfactory and practical, as well as elaborate work on this, at present engrossing subject that has yet been published. Every man who thinks about making silos to preserve green crops should possess a copy.

THE ALBUM WRITER'S FRIEND.—Is a great help to those unused to writing rhymes or compositions for albums. Like the "Letter Writer," it helps the uninitiated to express their wishes and hopes. Compiled and published by J. S. Ogilvie & Co., 25 Rose Street, New York. Price 15 cents.

WE have several communications on hand, among which, is Mr. A. Smith's reply to Mr. Lawrence, that we regret cannot appear in this number for want of space.

Catalogues Received.

WESTERN MARYLAND COLLEGE for students of both sexes, in separate departments. We have received the catalogue of this flourishing educational institution.

From Messrs. SMITHS & POWELL, of Syracuse, N. Y., their elegant catalogues of Clydesdale and Hamiltonian horses and Holstein cattle.

LIVE STOCK REGISTER.

We are indebted to Mr. J. H. Reall, the efficient secretary of the American Agricultural Association, for an advance sheet of the Journal of that society, upon a subject of national importance, commanding universal attention. This statement of the American Agricultural Association will have a great and deserved effect in quieting the fears of our people, and dispersing the damaging reports in foreign countries of the unwholesomeness of American pork and bacon. We give the article in full.

TRICHINOSIS.

"On the strength of a report issued by Mr. George Crump, acting British Consul in Philadelphia, in December last, much excitement has arisen over the pork product of the United States. This Association has made an extended investigation of the subject, in the interests of American producers and finds there is no occasion whatever for the scare.

By a careful reading of Mr. Crump's report, which created the alarm, it will be seen that there is no foundation for any excitement. Mr. Crump speaks of Hog Cholera, not of Trichinosis, as the prevalent disease. That the former exists, and has existed to an extent most injurious to producers, it would be folly to deny, but it has not affected the pork product, for the reason that animals dying from this or any disease, are not and cannot be marketed for food. From Cholera, the farmer, and the farmer only is the sufferer. It mostly affects the young pig.

Instead of denying the existence of this disease amongst hogs, means should be employed to obtain a cure for it, and it would be well for the government to aid in the extinction of this and other diseases of animals. A commission, having a thoroughly practical man at its head, could undoubtedly produce satisfactory results. A few thousand dollars could be very wisely and beneficially spent by the government in this matter.

Trichinosis exists, but to a more limited extent probably than any disease known to men. It is believed never to injure the

hog, and scientific experts unite in the statement that it can never enter the human system except through insufficiently cooked meat, in which it should happen to exist. These are the simple facts with regard to it. As to the danger from the use of American pork products, either by home or foreign consumers, there is absolutely none, first, from an almost total absence of Trichinosis; second, through protection by cooking. The curers of provisions in the United States are amongst the most honorable, pains-taking, skilled merchants and manufacturers, whose interest is in putting up only the best and purest product. The pains they take and the method they practice is a guarantee against danger. * *

Every attention should be given to the matter of keeping our food products pure and beyond suspicion. On this, our future prosperity as a nation hinges, for if we loose our export trade in produce, we may close our doors and vacate our farms."

THE MUTTON SUPPLY.—The *per capita* consumption of mutton, though somewhat increased during the last decade, is still quite small in comparison with the amount of beef and pork annually served upon the tables of the United States. There are, however, good reasons for the prediction that the decade just entered upon will close upon figures showing less disparity than is seen in such as are now obtainable. Prominent among these may be cited the improved quality of mutton supplied to the markets. This has been brought about largely by valuable additions to our mutton producing animals, through importation and by breeding; improvement in the manner of feeding, and increased and cheapened facilities for transportation. The decadence of the prejudice against mutton is a factor that ought not to be overlooked. This prejudice, born of ignorance, and encouraged by the presence of inferior sheep, improper feeding and slovenly slaughtering, invariably gives way when the opportunity for proving its fallacy is presented. Flock owner will materially assist in popularizing mutton eating, and at the same time enhance their own receipts, by placing their sheep in the best possible condition before allowing them to go upon the market. Not only do choice articles find a readier sale, but they command a better price per pound than inferior ones.

Oil Cake in Stock Feeding.

The sheet anchor of our meat production, aside from grass, is Indian corn, as is the turnip or other root crop, that of England. But we do not manifest the same skill and judgment in compensating for the deficiency of albuminoids in corn as stock food, as do the English farmers in the turnip. The proportion of albuminoids to carbohydrates, is about the same in Indian corn as in the turnip, which being in a succulent state, assists in promoting a healthy condition of the digestive system in winter, while corn, being a highly concentrated, carbonaceous food, is productive of a heated, feverish state of the system, unless combined with some succulent or laxative food. The English feeder buys oil cake, and feeds a regular ration with turnips, because he finds the cake rich in the elements which are deficient in the turnip. He does this to make a better balanced food—to cause a rapid growth and fattening, and rich manure. When he buys our indian corn to feed, he never takes an exclusive ration of it, as we do, but feeds it with oil cake, bean meal, rape cake and other food rich in muscle forming matter.

In such a combination, corn is a most efficient food, and British feeders have become well aware of its value. Of the 70,870,983 bushels of corn exported from the United States in 1877, the United Kingdom took 54,467,435 bushels. She has found corn to be a most excellent fattening food. But when she buys our corn she does not neglect our oil cake, but takes a larger proportion of that than of the corn. We sold, in 1877, 273,670,949 pounds of oil cake, and the United Kingdom bought of this, 268,403,276 pounds, or 98 per cent. In fact, British feeders buy all the oil cake we can export, and would, no doubt, buy much more if they could find it.

American feeders do not yet prize oil cake as it deserves, for during the last fiscal year we exported 70,000,000 pounds more than in 1877, and nearly all this went to enrich English soils.

Late machinery has improved the quality of our cotton seed cake, which forms a large part of the oil cake exported, and it is now coming more into use in England as a feeding stuff, and being still richer in nitrogen than linseed cake, is highly prized for the rich manure it produces. This cot-

ton seed cake, when all the seed shall be carefully saved, will amount to no less than 4,000,000 tons of decorticated cotton seed oil cake. And it becomes a question of great importance to our future welfare to prevent this great drain on the fertility of our soil.—*Ex.*

Sheep Husbandry.

In the future of America, this industry must have an important position; and an essential element of success must be an intelligent knowledge of the business of handling sheep. Having this knowledge, a clear and intelligent knowledge of the markets will be necessary. From our standpoint, we cannot see a success in sheep husbandry except through the two products, wool and mutton. We are not now discussing the breeding of thoroughbreds for breeding purposes, but that of breeding for the butcher and manufacturer.

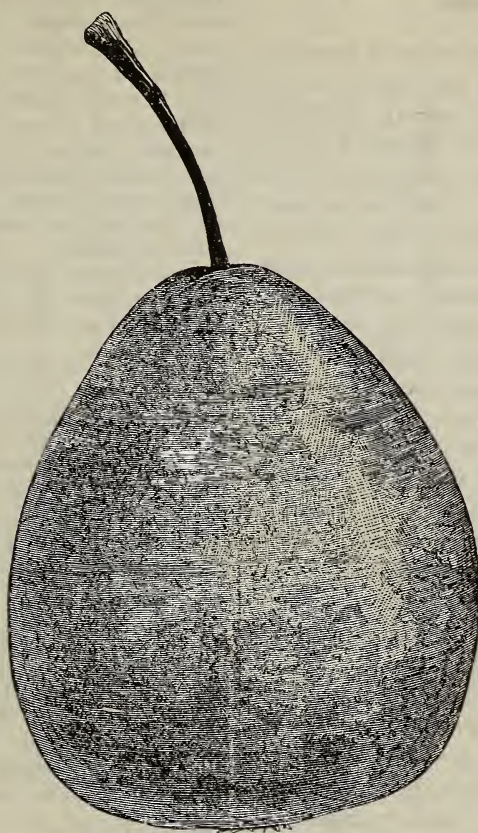
This branch of sheep husbandry is of interest to *every farmer*, and *ought* to be. A small flock of sheep is easily handled, and almost always healthy. A flock of twenty-five to fifty good common ewes, and a good, thoroughbred ram, of the English mutton breeds to cover them, would always be a source of profit. And the boys, as they grow up with such a flock, would become shepherds to handle larger flocks, if desired.

Under this system, the ram lambs should all be trimmed at four to eight weeks old, the ewes should go out at the fourth lamb and their places supplied with younger ewes. In this way, the flock would be likely to continue healthy, and the farmer have not only a profitable but pleasant employment. Good rams and fresh blood is essential to success. The ewes will feed out under this system, at \$10. The wethers and ewe lambs will go off, at eighteen months old, for \$10 to \$12 a head, and will have given from \$3 to \$4, in wool, in the meantime.—*Breeders' Live Stock Journal.*

The sum of £1,500 was offered to, and refused by the owner of a ram exhibited at the recent sheep show of the Australian Sheep Breeders' Association, held at Melbourne, where many other valuable stud merinos were exhibited, the aggregate worth of which amounted to several thousand pounds.

This fine new American Pear originated in Washington County, New York, is propagated for sale by P. H. Foster, Babylon Nursery, Long Island, New York. The tree is moderately vigorous, very productive, fruit rather large, bell shape,

The New American Pear.



"MARSHALL."

russett-yellow when ripe, thin skin, flesh white, juicy, buttery, flavor neither sweet nor sour, ten days after the Bartlett, as good a bearer and better fruit, smooth, does not crack or canker, is always much admired while growing and when ripe.

This pear possesses such excellent shipping qualities that it can be placed in perfect order in the European markets, where its beauty and excellence will, no doubt, command the highest price. It is said to be a good keeper. The above cut simply shows the shape of this highly recommended pear. Several eminent horticulturalists have tasted it and pronounce flattering judgments as to its merits. The well known editor of *Gardener's Monthly*,—Thomas Meehan, Esq., thus commends it:

"The fruit of the Marshall came a few weeks ago, and we can truly say that few pears will excel it in flavor. We regard it as a valuable acquisition, and we say this, knowing full well that the list of pears

'recommended for cultivation' is already too large."

We advise every fruit grower and amateur pear grower to try the Marshall pear.

THE MARYLAND JOCKEY CLUB will hold its Spring Meeting at Pimlico, on the 24th, 25th, 26th and 27th of May, and there is every indication that it will be one of the most brilliant meetings it has ever held.

Messrs. S. M. PETTENGILL & Co., of N. Y., Advertising Agency, have disposed of the *Philadelphia Branch* of their Newspaper Advertising Agency, to the well known and enterprising firm of N. W. AYER & SON, of that city, who will consolidate this with their own business.

Prospects of the Fruit and Grain Crops.

Owing to the unprecedented severity of the past winter and the late snows and frosts, we felt much anxiety concerning the damage which the farmers have sustained, and the many statements in the daily papers were so conflicting, we determined to write to a limited number of prominent horticulturalists and farmers in different sections of the country, to obtain such information as we could rely upon to set before our readers, from which they could draw just conclusions for their government in making sales of their fruit, grain, etc., the coming season. We return our thanks to the several gentlemen who have promptly responded to our enquiries and herewith give extracts from their replies. Besides replies to our direct questions, some, it will be seen, have expressed their views upon other matters connected with agriculture, which will be of interest to the reader. We are glad to have such an opportunity to offer so much information from distinguished persons, living in far different regions. Our only regret is, that want of space compels us to abstain from publishing each letter in full, for there is not one that is not excellent reading from its beginning to the end. We, however, have given all the space it was possible to this correspondence, because of its value.

VIRGINIA :—

From Dr. Thomas Pollard, Commissioner of Agriculture. Richmond, April, 4, 1881.

"The peaches in this section are generally killed, but in Tide Water Va., say 30 miles below Richmond, I do not think they are. I examined them at "Lester Manor," the estate of Jno. B. Davis, in King William, about 35 miles below Richmond, about three weeks since; they were not killed. He raises a large quantity for canning. Other fruits, save apricots, are not injured in this part of the State. I clip an item from the *Clarke Courier*, published in the *Richmond Whig*, on the subject of

the cold upon fruit trees in that section. The winter there, has been much more severe than in Middle and Tide Water Virginia. The wheat, I am afraid, is much injured. I see some looking well, while other is much thinned out by the freezing. With a good season it may come out and possibly make a good crop. The winter oats, seeded in the fall, are generally killed. Some seeded first of September are standing. Spring oat seeding and plowing is very backward." "We learn from the *Clarke Courier* that the peach, apricot and pear trees were all killed above the snow-bed, by the severity of the winter weather."

From Col. S. S. Bradford,

CULPEPER, VA., April 6.

"Tis rather early to form a reliable opinion of the damage done by the winter's severity to the several fruit crops of this section. I do not think the wheat has been materially injured. It is unusually short and backward, but the plant is healthy and vigorous—needs only genial spring sun and showers to forward its growth. It was covered with snow, during the intensely cold weather, but when the snow melted away rapidly, leaving the plant in tender condition, several days more freezing and thawing damaged it considerably, with which exception it has fared ordinarily well, and if reasonable weather henceforward, will make an average crop."

From J. W. Porter, Esq.

CHARLOTTESVILLE, VA., April 7, 1881.

"Wheat, in this section, is looking very backward. Nothing can now make it good but a genial spring, with seasonable showers. At present, we are having what may prove to be a long April drought, having had no rain for many days. If it continues a little longer it will be fatal to all early sowed clover seed.

"The general report is, that the peach buds have been killed, and that there will be no peaches.

"I am happy to say that in my sheltered location, the trees are thus far safe. It is not believed that other fruits have been seriously injured.

"The severity of the winter, so long unbroken, retarded the expansion of fruit buds, and if we have no unreasonable late frosts, Pomona will reward her devotees with an abundant harvest.

"Grape culture is being constantly ex-

tended in Albemarle and some of the adjacent counties, large plantings being made this spring, more particularly in the vicinity of Charlottesville. It has proved quite remunerative thus far to all who have intelligently engaged in it here.

"From all parts of the country we have reports of great losses of bees.

"The severity of the weather, and often, the improvidence of the apiarist has caused extraordinary loss. But with judicious care and earnest effort, a large part of the losses can be made up before the honey season arrives; thanks to the new light we have to guide us, and the new appliances available to those who use the movable comb hives.

"As I cannot in this give full instructions, I will briefly say that a small daily feed of thin honey or thin syrup, made of 'A' coffee sugar—say $\frac{1}{4}$ to $\frac{1}{2}$ lb. daily, the smaller amount to colonies provided with some honey, will excite to great activity in brood rearing. In cool weather the feeding should be done inside the hives and may be done by those who have no feeders, by pouring the syrup into heavy combs which hang in the hive, bearing in mind to keep the bees warmly covered.

"When the hive is full of bees and plenty of brood, take out a part to help weak colonies or form artificial colonies, and replace with empty combs."

From Col. J. W. Ware:

CLARKE CO., VA., April 5, 1881.

"We have had a terrible winter, beginning in November, continuing on now in April. A heavy snow fell, laying long on the ground; this protected the wheat during that long spell of hard weather. I doubt that injuring the wheat, but since the snow left, we have had hard freezing and thawing weather, which is hardest on wheat, doubtless, it has suffered, and will suffer more if this weather continues, so that we cannot expect as good crop this year as last—fruiters think their fruit lost. Not a furrow has been turned here yet, though, heretofore, we have been able to plow in February.

The great loss has been with sheep; when snow is on the ground, the constipation of the bowels causes a disease that we all know by different names; all know it is difficult to cure, and but few seek to provide a preventive. In England we hear

nothing of it, there they feed turnips. If the farmer could raise turnips for his sheep in winter, in snow, the probability is, he would save many. In case of failure, other roots, also cabbage would greatly aid—failing in these, mix a little epsom salts (*dry*) with fine salt, to give them, it will act better *dry*, on *sheep and cattle* than in a *liquid* state and keep their bowels in a more wholesome state."

From Mr. John E. Massey:

ALBEMARLE CO., April 5, 1881.

"'Winter is still lingering in the lap of spring.' It was six degrees below freezing point at sunrise this morning. No apple or peach blossom is yet out. The buds are showing and blossoms forming. I examined a number to-day and found them uninjured, so far as I could judge from appearance. Both apples and peaches are reported to have been killed in the bud, in some portions of Virginia. I hope this may prove to be a mistake. I am quite sure such is not the case generally through the State.

"Winter oats were unable to stand the unusually severe winter through which we have passed. But few, if any, survived it.

"Wheat suffered severely and looks very badly, giving but little promise of an average crop.

"The unusually long and cold winter was very hard upon all kinds of farm animals, especially those who were not well housed or sheltered."

From Gen. G. S. Meem:

SHENANDOAH VALLEY, April 9 1881.

"The wheat crop went into early winter quarters last fall, looking worse than I have ever known it, in fact a good portion of it barely up. The fall was dry and hot, and seeding was postponed until the latest moment, and the earliest sown made but little growth before winter of the severest type came upon us. It looked quite fresh and green when the snow left us in March, but the repeated freezings afterwards, injured all the late sowing seriously. I do not think it possible with the most favorable season to make more than a fair crop, certainly not an average one."

From Mr. Jno. Rust:

WESTMORELAND CO., VA. Apr. 9-81.

"The peaches are almost an entire failure. I may be safe in saying the pears, apricots and apples are uninjured. The wheat is

backward and thin in many places, from being thrown out by frost, especially that which was sown late. Three mornings during the present week the ground was frozen too hard to plow."

From W. Gordon Merrick, Esq.

ALBEMARLE CO., VA., April 5, 1881.

"Wheat looks indifferently, but has been but little frozen out. We have had but one bad season for fall sowed grain, which occurred when the snow melted, filling the ground with water, which was followed by severe weather, causing grain on wet land to freeze out, and very materially injured winter oats. Thus far there has been but little growing weather. Peach buds have hardly swelled and I hear many reports that the fruit is killed, which I hardly think can be certainly known at present, but if it has been, the damage was done in the fall, by the sudden cold weather, for we have had no weather since Xmas to injure them. Pears are most forward, they were badly injured last year by blight, which was very destructive in this neighborhood. It is not time to judge of the apple crop, as none but Siberian crabs have commenced to show signs of life. The thermometer is below freezing to-night, and stood at 25° at sunrise this morning. The lowest thermometer this winter was 6°. I have peas up, but fear their destruction although protected.

"But little preparation is being made for tobacco, in fact it has been almost given up (on account of low price) in this tobacco growing neighborhood. I don't know that I ever saw so little going to market at this season before. The truth is, the farmers hardly know what to plant or engage in, the old system does not pay and they are on the fence as it were. A few far-seeing ones have seized the situation and are devoting themselves to grass and stock, which, without doubt will be the future system of farming in the Piedmont district. Grapes, where the situation and soil are suitable, carries many, and after ten years' trial I think that they have proved a success. I know of several vineyards of from 10 to 20 acres in extent, and every year adds to the acreage. A wine cellar has been established and already contains some 30,000 or 40,000 gallons. The French medal was given to Virginia wine at the last exhibition. Our season is at least three weeks behind this year."

MARYLAND.

From Major L. Giddings:

Near ANNAPOLIS, April 9, 1881.

"Since the snow left us I have been too busy to leave my farm and can only report as to my own crops.

Early sown grain looks well, but the clover which was sown and had sprouted in March, was killed by the frosts in the early days of this month. The peach buds have been almost entirely destroyed and the trees in one of my orchards (on low ground) have been so injured that I shall grub them out. Apples, pears and cherries are all right. So are the grapes, except Roger's hybrids, of which I cultivate only a few, of two kinds, viz: Goethe and Lindlay. The young canes of these varieties have been frozen, but not so far as to cause the loss of the whole crop."

From Dr. Wm. H. DeCourcy:

CHESTON, MD., April 7, 1881.

"The wheat crop emerged from the rigors of the winter, *living* and green—not so much winter-killed or thrown out as had been apprehended. It made but little growth last fall, and the spring, so far, has been unfavorable towards bringing it on. The past several days of severely cold and freezing weather must give it a serious check. Early sown wheat presents the most favorable aspect. I should say the present condition of the crop was very backward, with the probability at least of late harvest.

The grass crops (clover and timothy) sown last spring, were almost entirely destroyed, by want of sufficient moisture at the period of sprouting of the seed and the subsequent drouth of the summer, pretty effectually finished what little had survived the first named difficulties. I apprehend the present 'cold snap' may do much injury to clover seed sown sufficiently already long to have vegetated. Very little has been done towards preparation for the corn crop. The ground has been too wet for either hauling out manure or plowing. All farmers with whom I come in contact complain of being much behind hand in their spring work."

We have received from a friend in Harford county, in reply to our inquiries, the following statement in regard to the crop prospects in that county, and upon his own,

as well as the observations of others with whom he has communicated.

"The wheat where it was sown in good season the past fall, and with a drill, although it presented rather an unfavorable appearance immediately after the snow had melted off, soon began to assume a better color, and is now looking very well; but the wheat that was sown late, and particularly when it was broadcasted, presents a very unthrifty appearance, and will, most likely, make but a poor yield. So, in Harford county we need not expect anything but an average crop, with the probabilities that it will go below the average.

"There will not be a large crop of oats seeded, as our farmers, of late years, unless they can get their oats sown by the first of April, generally omit sowing them, and either summer fallow their oat ground for wheat, or put it in corn.

"It is too early to say much about the corn crop. It is very probable a large amount of ground will be planted, particularly as our farmers feel quite sure, from the experience of several years, of a crop, even if planted as late as June.

"There will be a great breadth of land planted in Harford this season, in fruit, corn and tomatoes, for canning purposes. This business has assumed vast proportions in this county. In addition to the existing establishments for canning, a large number are being constructed in different sections of the county.

In some sections of the county the fruit is said to be very much injured."

From Mr. R. G. Maynard:

PIKESVILLE, April 9, 1881.

"I cannot at this time give any definite information as to our coming crops of grain, grass and fruit. The early sown wheat, with us, generally looks well, while the late sown, on corn ground looks badly. Our great fear is, that the young timothy has been much injured, and perhaps the clover seed sown in March as many do. The continued cold, freezing and thawing is very bad on our clover fields. Oats look not promising. We are now plowing for corn and potatoes, the ground was quite frozen. All garden work has been much delayed. Should the weather become warm and seasonable we yet hope to realize a fair crop."

From Hon. Thos. H. Gwynn:

PRINCE GEORGE'S CO., April 8, 1881.

"Now, that blustering March, after having lingered in the lap of April for nearly a whole week, seems inclined at last to yield to the genial influence of gentle showers and vernal rays. I trust we will soon see the green leaf of the new come spring to cheer the heart of the agriculturist, after an unusually long and cold winter which has destroyed all prospect of a peach crop for this year, in this section. I have carefully examined the buds in some of my neighbors orchards, as well as my own, and have failed to find a single live one. I have been informed that the cold winter has killed a great many of the young peach trees, which had to be grubbed up and replaced with new ones. How far other fruits have been affected I am unable to say thus early, but may inform you at some later period. The intensely cold winter, followed by a remarkably wet March, has retarded farming operations very much. We have just finished sowing tobacco beds and have done little or no fallowing. The heavy rains in March had one good effect, however, that is to beat down and pack the dirt to the roots of the wheat crop, which the heavy freezes had thrown out. Although the wheat is not as forward as usual this season, yet, with propitious seasons we may expect a fair average crop. I fear the cold snap the 5th and 6th of this month, when ice was formed half inch thick in exposed places, destroyed a great deal of the young clover which was just up from early seeding. Although we are later than usual in sowing our tobacco beds, yet with good genial showers and warm sun they may come early enough for good crops, if pushed a little in their growth when planted in the fields, by the use of some quick fertilizers to give them a start, and aid in bringing them to an early maturity."

From S. Vannort, Esq.:

KENT CO., MD., April 13, 1881.

"The peach crop in some localities is almost a total failure, but in others there is a prospect for a small crop. The wheat crops have been severely dealt with, after the snow left, it looked very pretty, but continual freezing and thawing have injured it some, but am not able to say to what extent."

DISTRICT OF COLUMBIA.

From Col. D. S. Curtiss :

"In response to your request for information in regard to prospects of fruit and grain the coming season. I can give you but few reliable notes.

"*Fruit*.—By inquiries of several observing growers in Maryland, Virginia and District of Columbia, I learn that the prospect for peaches is not promising of abundance of that popular fruit, examination showing that most of the fruit buds have been destroyed by the severe winter weather; and that in many instances the trees, even, are killed. The same authorities generally say, that the prospects of apples, cherries and pears are reasonably fair—though the season with them is not sufficiently advanced to speak with any certainty. The very heavy crops of the latter named fruits, particularly apples, last year, were so exhaustive of the bearing capacity of the trees, that a full crop of fine apples cannot reasonably be expected. Full crops cannot be produced every year.

"*Wheat*.—Far as I have been able to learn from farmers in this District, and adjacent counties of Maryland and Virginia, the winter wheat has been somewhat injured by the winter, in some localities, while it promises a fair crop in other sections. I find that the *latest* sown, on shallow plowing, as a general thing is most injured; while that sown *early*, on well prepared ground is less injured, and promises fair yield, $\frac{1}{3}$ to $\frac{1}{2}$ average.

"One prominent farmer of Loudoun Co., Va., who sowed 120 acres of *wheat*, last fall, says, it now all promises a fair yield, that sown earliest promising best results, and that, on well drained land suffered less by the winter.

"He further says that, his peaches are but little injured—none of the trees having suffered by the winter, except those on low, wet land; he says, very few of the fruit buds appeared to be injured, and he expects a good crop of peaches and other fruits, the coming season.

"By papers and letters received from Ohio and Michigan, I learn that considerable damage has been done to winter grain; and that less than an average crop may be expected in those States—not more than two-thirds or three-fourths of last year's crop can be hoped for this year."

NORTH CAROLINA.

From James W. Albright, Editor of "*The Beacon*."

GREENSBORO, N. C., April 5, 1881.

"The past winter has been the most severe known in this section since 1856-7, which latter was really not so cold: Much of the fruit was killed in the bud—something unknown in this latitude since 1831-2. But few trees have bloomed yet, and it is feared much of this has been killed during the past five days, as ice has been made from $\frac{1}{4}$ to $\frac{1}{2}$ inch thick, in vessels out doors. The elms, which usually bud in February, are not yet in leaf. But few peaches are in bloom. Pears, cherries, apples and plums just ready to bloom, but look as if killed. It will take a day or so of warm sunshine to determine the extent of the injury done.

"April 1st, it snowed as hard as I ever saw it, and lay on the ground for two days. It was 5 inches deep.

"Wheat, oats and the grasses look well, but are smaller than usual at this season. Owing to early fall and late spring, not so much wheat and oats were sown.

"I never saw farms look better, or our people working better than at present. If this is kept up full crops will reward their labor, still wheat and oats will fall far short of an average crop.

Cotton and tobacco are receiving more attention than usual. The grasses are being more generally introduced, and the cultivation of rice, which has long been considered only adapted to our sea coast, is receiving considerable attention. Four weeks hence, I can tell you definitely about fruits."

From C. W. Johnson, Esq.:

CHAPEL HILL, N. C. April 6, 1881.

"I am sorry to report that the prospect of farming interests in my section is very gloomy indeed. Not more than half a crop of wheat was seeded in the fall, in consequence of excessive wet weather, and a large proportion of that is killed out. Wheat is sown here in the spring, but we regard it as a very uncertain crop.

"Oats are in a still worse condition. The fruit crop, I suppose, is almost a total failure in this vicinity. The spring has been so cold and backward that very little has been done in the way of gardening. It is too early, of course, to predict what the

vegetable crop may be. Preparation are being made to plant a large corn and cotton crop. Just beginning to plant corn—commence planting cotton in two weeks.”

SOUTH CAROLINA.

From Mr. J. C. Stribling:

PENDLETON, S. C., April 5, 1881.

“I think our peach crop will be a total failure, so will pears, plums and cherries, the earlier blooming being totally killed by our recent freeze. The apple crop will also be rather thin on the same account. We had many peach trees that did not bloom at all. Early sown winter wheat is looking fine, with a prospect of a good crop. Early sown fall oats are also fine—late sown fall and spring oats have suffered by the severe winter and will hardly make a half crop. Stock of all sorts have suffered severely from cold and short feed. Planting will be about ten or fifteen days later than usual this Spring, on account of the freezing we are now having.”

GEORGIA.

From W. W. Woodruff, Esq.

GRIFFIN, GA., April 8, 1881.

“The frost has kissed our fruit again, and it is gone for the third time in successive years, and we fruit men are nearly ready for the *millenium*.”

“We have had the hardest winter, perhaps, ever experienced in this soft, balmy climate. Wheat and oats look as well as could be expected, and may possibly turn out a fair crop. Corn that was planted about 15th March has not come up and will, most likely, have to be replanted. An extra large area is being prepared for cotton, and a larger amount of fertilizers have been put in. What will be the result of all this, time must tell.”

From Dr. W. B. Jones:

HERNDON, GA., April 10, 1881.

“Much of the early fruit is killed—figs and early peaches. Fortunately, but little progress had been made. The trees kept back by constant cold atmosphere; and apples and other hardy fruit not yet touched. If we have no other freeze this month, our prospects here are fair for a partial fruit crop of apples, pears, peaches and all the smaller fruits and berries, which were late in putting forward blossoms. At this point, from which I write, 90 miles from sea coast, 175 feet elevation, 33° degrees latitude, our

mean temperature for first 10 days April, was 54½°—coldest day, 1st April, 31°

OHIO.

From Dr. Jno Warder:

NORTH BEND, O., April 8, 1881.

“The winter, like all its predecessors, has been a remarkable one, and yet, our records show for some years very similar phenomena as to snow and temperature. The wheat, which we should expect to have been protected by almost continuous snow, has suffered from ‘heaving’ to an enormous extent, and looks badly, with some happy exceptions. The fact is, the ground under the snow was scarcely frozen, while so covered, and a great part of the time, from November until March, the soil was so perfectly thawed underneath, that we could scarcely get about our fields, even with a sled, wagons could not be used off the beaten roads. In the frozen soils it was stiff work. During March we had some hard frosts, making a crust that was easily broken by the wheels, and in sunshine the surface thawed, and with the unusual amount of snow, even into April, these alterations must have injured the wheat plant.

“The peach trees, particularly old ones, have suffered materially, and in February, the inner bark of the alburnum, when cut into, looked so brown that the trees were pronounced dead or seriously injured, now the thrifty trees have quite recovered their healthy looks and present a bright green and white color when cut, even close by the wounds made in February, but the older trees are chiefly dead. The buds were generally killed. In December, 25 per cent. were dead; in February, 75 per cent. seemed killed, or all, according to some observers, but now my young trees present quite a number of sound buds, perhaps 10 per cent. The trees seen at points in Arkansas, about the first of February, in the same ill condition and declared dead, are now reported in blossom.

“The apples and pears are believed to have escaped, except very thrifty young trees in low grounds, but the cherries, especially the sweet kinds, are not likely to bud and blossom this year.

“The grapes are badly injured in the buds, but the wood shows well on all hardy sorts. My raspberries, even tender kinds, are no worse now than last spring, after a

mild winter. Some report serious injury to most kinds.

"Blackberries are badly put back by frost, except the *Snyder*."

"Roses I have never seen so badly killed as now, and have been trimmed to the ground except a few iron-clad kinds."

"Clover very badly killed and heaved, much of it was so dead as to come off, when using the Thomas' harrow."

From J. Gould, Esq., of the "*Cleveland Herald*."

AURORA, O., April 2, 1881.

"* * * Never was such a snow seen up here at this season. To-day, the snow lays upon the ground to the depth of two feet, and it has snowed incessantly, for 100 hours, and is falling fast, as I write."

"We got out a wheat bulletin this morning from 100 towns in Ohio, and inclose the editorial summary."

[This summary indicates but little or no increase of the wheat crop this year, in Ohio, while it shows that there has been for various reasons, a large increase of area sown in that State,—Eds. Md. Far.]

TENNESSEE.

A. W. Hawkins, Esq. :

NASHVILLE, April 13, 1881.

"I will say that, so far as I have been able to ascertain, no serious damage has been done to the fruit or other crops, by the cold weather. Vegetation has been much retarded and the preparation for the spring planting delayed."

CONNECTICUT.

From Mr. J. M. Hubbard :

MIDDLETOWN, April 11, 1881.

"Our more important agricultural interests are not endangered by severe winters. The one just passed has been long and hard, and has involved extra expense in carrying our stock, but, so far as crops are concerned, we are far more fortunate than our Western—perhaps, more so, than our Southern brethren."

We learn from our exchanges that farmers on the Peninsula are grubbing up peach trees by the acre, and preparing to put in corn the ground now encumbered by the unfruitful trees. In Dorchester county, Md., the wheat crop is looking very poorly and the prospect is not flattering.

From all the above and from many other sources, we have come to the conclusion that the fruit crop, peaches especially, has have been greatly injured. The early sown clover seed has been mostly lost, and winter oats have proved a failure; the season is, at least, 3 or 4 weeks behind the year 1880, which was an unusually early one, and that a fair crop of wheat may be expected, although the late sown wheat, everywhere, is represented as looking very bad. If we were to judge from these letters, we would conclude that early sowing of wheat is best, but it may be only applicable to this season. Late sown wheat, looking, on the 10th of April, very badly, may prove to be better than early sown, if the season hereafter prove favorable, as we have very often seen the case.

Messrs. Editors.—I claim to have knowledge of a method of corn culture, by which an immense yield of from 125 to 150 bushels of corn can be obtained from each acre, (170 bushels, an actual fact, and 200 bushels, a possibility.) I am willing to give your readers, and all working farmers the benefit, *on condition that they take an oath, before a Notary Public, to plant and cultivate not less than 10 acres of land by my method, and guarantee to me $\frac{1}{4}$ of increase over yield by ordinary method.* I do not ask any money or advance payment, but simply desire a *guarantee* that if, by using my method of corn culture, I can enable farmers to *increased crop*, that I will receive $\frac{1}{4}$ of the benefit thus conferred on them. *Correspondence solicited.*

J. FRAZIER ROSS.

202 Penna. Ave., Balto., Md.

HAPPY FRIENDS.—Rev. F. M. Winburne, Pastor M. E. Church, Mexia, Texas, writes as follows: Several months since, I received a supply of 'St. Jacobs Oil. Retaining two bottles, I distributed the rest among friends. It is a most excellent remedy for pains and aches of various kinds, especially neuralgia and rheumatic affections.—*Jackson Daily Patriot.*

LADIES' DEPARTMENT.

Chats with the Ladies for May.

BY PATUXENT PLANTER.

VERNAL FAITH.

When heaven was stormy, earth was cold,
And sunlight shunned the wold and wave,
Thought burrowed in the church-yard mould,
And fed on dreams that haunt the grave.

But now that heaven is free from strife,
And Earth's full heart with rapture swells,
Thought soars through fields of endless life
Above the shining asphodels.

What flower that drinks the south wind's breath,
What sparkling leaf, what Hebe morn,
But flouts the sullen grey-beard, Death,
And laughs our Arctic doubts to scorn?

Pale scientist, scant of healthful blood,
Your ghastly tomes one moment close;
Pluck freshness from a spring-time bud,
Find wisdom in the opening rose.

Mark the white lily, whose sweet core
Hath many a wild bee swarm enticed,
And drew therefrom a honeyed lore
Pure as the tender creed of Christ.

Yea, even the weed, which upward holds
Its tiny ear past bower and lawn,
A lovelier faith than your's unfolds,
Caught from the far, faint winds of dawn.

PAUL H. HAYNE, in *Harper's Magazine*, for April.

In these lines the Southern poet has eloquently expressed the happy lesson, which the spring season forcibly teaches, that all nature proves there is a beautiful life after resurrection. Feebleness of childhood, strength of manhood, decrepitude of old age, death, dissolution, and *then*, a new birth to another life.

After a long, stern winter, comes "mild, ethereal spring," and in her train, all the dawning loveliness of earth, to ripen into the full perfection of summer. This is the lesson of the seasons, typical of the life, death and resurrection of man. Let us strive to profit by this teaching of nature, and aid her all we can to develop the truths she stereotypes on every tablet of the human heart, in her own language of flowers.

The month of May is the most time-engrossing month that the country ladies enjoy during the year. The weather is generally pleasant, the flower garden begins to show its wealth of floral beauty, the air is

full of perfume and the music of birds, the bees, demanding attention, the dairy is yielding its nicest butter and sweetest milk, the poultry are in full feather, and the darling, little chicks and ducklings are objects of constant care and pleasure. The notable, thrifty house-wife has her hands full of all these things, besides the house cleaning and the usual repairs for the summer season.

Another important charge that should be assumed, for it properly belongs to woman, is the superintendence of the vegetable garden. The master, or his man, should do the work under the direction of the mistress, who is the party chiefly interested, for she is expected to have her table, all summer, loaded with choice vegetables in variety, and luscious fruits, in their successive seasons. The health and comfort, indeed, the sustenance of the household, during the warm weather, mainly depends on the products of the garden, the orchard, the dairy and the poultry yard. It should therefore be the determination of the feminine ruler of every household, to provide these necessary appendages to good living in summer.

Provision should be made now, to have a full supply of rhubarb, strawberries, raspberries, blackberries, currants, cherries, gooseberries, apricots, figs, peaches, plums, grapes, quinces, pears, apples, melons, &c., and all the best varieties of vegetables in profusion, the chief among which, in quantity, should be tomatoes, potatoes, peas, corn and beets; two or more of these should be served up every day, for three or four months, with some others, not so generally eaten, such as egg plants, cucumbers, onions, cabbage, &c. It must not be forgotten, too, that no dinner is perfect without a salad of some sort, therefore, in their season, there should be lettuce, cress, celery or endive, or some other nice salad to be eaten alone, or dressed as an olio, with fowl, crab, lobster or fish. With a small orchard, a good garden, and a fair amount of milk and butter, an elegant table can be kept at small cost and but little trouble.

It is not too late yet to plant strawberries and small fruits. 300 strawberry plants, two dozen, each, of raspberry, gooseberry, blackberry and currant bushes, and twelve grape vines, will be enough to furnish a family with a succession of these delicious fruits, from the first ripening of strawberries until the autumn frosts. After starting with this limited number of each sort, you can increase or multiply either one or all, to whatever number you may desire, so as to make them sources of revenue by marketing.

Nitrogen in Fertilizers.

MARYLAND AGRICULTURAL COLLEGE.

April 20th, 1881.

Mr. Editor:—The following letter from Professor Atwater, continues the discussion of ammonia in fertilizers. I give it in full.

"CHEMICAL LABORATORY,
Wesleyan University.

MIDDLETOWN, CONN., April, 15, 1881.
Prof. Warfield:

My Dear Sir.—An article by yourself in the Maryland Farmer, for this month, induces me to send some statements concerning experiments upon the effects of nitrogenous fertilizers, in which some questions you discuss are being tested. Could you not find it convenient to co-operate in work of this sort? Its usefulness needs no discussion. What is wanted is more and better experimenting. Good work has been done, and has taught how to do better. Co-operation will be extremely useful.

Very truly yours,
W. O. Atwater."

The accompanying statements are experiments for 1878, 1879 and 1880, with corn, in Maine, Vermont, Connecticut and New York, in order to test the relative value of nitrogenous matter in fertilizers. Prof. Atwater thinks that agricultural chemistry is yet to solve this problem, and therefore solicits co-operation, which will be given him.

The most rare, costly and therefore important ingredient of plant food, is nitrogen. Clover seems to gather a supply from sources that wheat cannot reach. Hence, a heavy nitrogenous manuring may be profitable for wheat, and be lost for the most part on clover. In the trials of Prof. Atwater, mineral fertilizers composed of

dissolved bone black and muriate of potash are first used alone, and then in combination with nitrogen in different amounts, and forms. The nitrogen was supplied as nitric acid in nitrate of soda, as ammonia in sulphate of ammonia, as organic nitrogen in dried blood, and in the several forms combined, in the 'nitrogen mixture,' and in Peruvian guano.

The average results of these experiments with corn for three years, in eleven special experiments, show a difference in favor of the application of nitrogen. The mixed mineral fertilizer, containing 300 lbs. superphosphated dissolved bone black and 150 lbs. of potash salt, brought, on an average, 45 bushels of shell corn, whilst the addition of 24 lbs. of nitrogen increased the yield to 54 bushels.

Reducing these results to a money value, Prof. Atwater thinks the nitrogen increased the crop, enough to pay its cost only in thirty, out of one hundred and fifty experiments. The pecuniary loss, rose and fell, with the amount of nitrogen used. In many of these trials, phosphoric acid took a leading place, whilst potash, occasionally, and nitrogen, rarely came to the front.

A remarkable exception to the majority of these trials, is that of Mr. Wm. C. Newton, of Connecticut, whose soil is a dark loam. Here, every plat without nitrogen was a failure; every one with it, a large yield, and the produce rose and fell, regularly, with the amount of nitrogen applied.

When asked how and where corn gets its nitrogen, Prof. Atwater declares he cannot answer. Having held, with the other experimenters mentioned in my last, the opinion that plants get nearly all their nitrogen from the soil, and extremely little from the air, he confesses he is not content to let this matter rest until unwearied work shall have demonstrated the interesting problem. Most truly yours,

J. D. WARFIELD.

James Butler, Esq., clerk of the Roxbury Carpet Co., Boston, Mass., employing eight hundred hands, in a late communication concerning the admirable working of an article introduced into the factory, says: "The famous Old German Remedy, St. Jacobs Oil has effected several cures among our men, who have been badly hurt in working in the factory, and they pronounce it a success every time.

For the Maryland Farmer.

Preparing Wool for Market.

I find, by an experience of many years in the wool business, that the only way to make wool growing profitable, applies to everything else the farmer has to do, and that way is to take pains and prepare everything carefully. In a country like yours, where there are such a small number of sheep, comparatively speaking, I can see no reason why the wool should not be so carefully prepared as to bring as much as the same character of wool grown in Ohio. The dung locks and burs should be taken out, and the wool allowed to dry, if not washed on the sheep's back, and put away in a dry place, and when such wool comes to market it commands a ready sale, because the manufacturer who buys it, knows just what he is getting. Sheep growing in this country is getting to be such a big thing that I feel confident in a short time, it will be paramount in importance to any industry in the land. Your people have large facilities for the growth of wool and could, no doubt, make a great success of it if your legislative authorities would only enact some law by which the miserable curs infesting your section could be killed off.

THOS. LEE.

[The writer of the above article is one of the most extensive wool merchants in Philadelphia, and who learned all about wool and its varied adaptedness to different manufactures in his native land of England. Last autumn, we extracted a promise from him, to give us his views about preparing wool for market, assorting the same with a view to the different kinds of goods manufactured, the kinds of sheep to be grown for the production of wool suitable for different woollen goods, &c. We expect to have a further reply to our queries, wherewith to gratify our readers.—EDS. MD. FAR.]

To accommodate our subscribers we will furnish any one or more of the leading Agricultural Journals, at the regular subscription price of the same, along with the Maryland Farmer.

THE JOURNAL OF THE AMERICAN AGRICULTURAL ASSOCIATION.—The first number of this valuable Journal lies before us, and reflects the highest credit upon the talent, energy and laudable enterprise of its editor, J. H. Reall, the secretary of the association, and the committee on the Journal. This Journal contains over 250 pages of reading matter, printed on fine paper, and with clear, handsome type, presenting a very attractive form and general make up. Price, 75 cents per number, two numbers a year. The membership fee is only \$2.00 per year, which entitles each member to a copy of the Journal and free admission to the exhibitions of the association, with other important advantages. These liberal offers, it would seem, can not fail to secure an immense number of members from all parts of the country, so as to make a grand National Agricultural Association. The editor, in his preface, thus speaks of the

OBJECTS OF THE ASSOCIATION.

“ * * * Immigration matters may receive proper attention from it. Through a journal and by conventions, the best agricultural thought and experience will be collated and disseminated. Through exhibitions stimulus will be given to the production of the best. To do all this, time is necessary * * * 1. The general dissemination of knowledge, relative to the best methods of agriculture. 2. Systematic testing of competing agricultural implements. 3. Scientific investigations into diseases of animals used on the farm. 4. The technical education of veterinary surgeons, tenants and land owners. 5. Exposure of frauds in the sale of inferior or adulterated manures, feeding stuffs and seeds. 6. Embodiment of such information contained in agricultural publications as may be proved by practical experience to be useful. 7. To encourage men of science in their attention to the improvement of agricultural implements, the construction of farm buildings and cottages, the application of chemistry to the general purposes of agriculture, the destruction of insects injurious to vegetable, and the eradication of weeds.”

The first number of the Journal is in full

keeping with the dignity and magnitude of a National Society, in its appearance and contents. It is mainly made up of well written essays, from eminent men from various parts of the country, upon the different subjects, that particularly at this time, interest the agriculturalists. It certainly reflects the highest credit upon the Association, and must prove a powerful lever in building up this institution, which we hope will rest upon broad, national principles, unstained by sectional prejudices or contaminated by political views or personal considerations. We shall watch with friendly solicitude, the onward march of this association and its organ, anticipating its future brilliant success.

Manufacturers, merchants, stock men and all who have articles for sale, very wisely seek to place their advertisements "where they will do the most good," and hence embrace that medium which extensively circulates among the large class of buyers of various goods, live stock etc., therefore it is that our advertising columns number so many pages. This is gratifying to us, and we feel sure is remunerative to all advertisers. But we assure the general reader that the reading matter is never encroached upon by the advertisements, but is often increased beyond our usual amount of thirty-two pages, as last month we had thirty-six pages, and this month thirty-six, instead of the regular thirty-two pages of reading matter, which we flatter ourselves, will, in every particular, compare with what is found in the columns of any other prominent agricultural journal in the country.

We have reason to be proud of our staff of regular and occasional correspondents, whose ability and prominence as individuals have added reputation to the Maryland Farmer, whose monthly columns are thus filled with the best of useful knowledge, practical experience and solid thoughts, while pleasant reading for the household has not been withheld.

AMERICAN POMOLOGICAL SOCIETY, SESSION OF 1880.—This is a full report of the proceeding of the seventeenth session of this Society. We tender our thanks to the venerable president, Marshal P. Wilder, for his courtesy in sending us a copy of this valuable report.

This publication is printed in a form and style worthy of its valuable contents. The typography is remarkable for its superiority, and the contents evidence an immense amount of labor and care on the part of Mr. Robert Manning, the secretary, to whom was committed the laborious task of its preparation. The highest credit is due to him for the elegance and completeness with which he has performed the duty assigned him. This report is invaluable to the progressive Pomologist.

THE CHEMICAL FERTILIZER EXCHANGE OF BALTIMORE, IN ITS RELATION TO THE FARMING INTERESTS OF THE COUNTRY.

We referred in our last number, briefly, to the Exchange organized in the interest of the fertilizing trade. We have been, as yet, unable to obtain full statistics, but will add a few words to what we have heretofore expressed.

During the past season, Baltimore manufactured in the neighborhood of 200,000 tons of scientifically prepared manures, and more, even, could have been sold, had the factories been able to turn out larger quantities. The area to which fertilizers have to be applied grows every year in extent. Not only for cotton and tobacco, the main staples of the South, but for wheat likewise. (the crop second in importance only to cotton) fertilizers have become necessary, and other crops experience a proportionate benefit if planted with the proper manure.

Demand regulates the supply. To one guano factory in existence ten years ago, there are now perhaps ten in operation, so there need be no fear entertained that the former will much exceed the latter. The organization of the fertilizer exchange is evidence that the trade is alive to its own

as well as to the true interests of the farmers. It is to the interest of the trade to have their goods inspected and analyzed by competent authorities,, so as to keep spurious articles out of the market and maintain the high standard of production. But every tax on the sale of fertilizers is indirectly a burden upon the farmer. The manufacturer must, as a matter of necessity, add to his price in any State where he has to pay a heavy tax, and thus it is that the farmer, in the last instance, suffers from unjust legislative measures. The exchange has, therefore, a significance which it is hardly possible to forestall, but, at all events, it is an organization whose interests are so closely interwoven with the most vital interests of the country, and whose interests run parallel with and harmonize so fully with those of the farmers, that its advent deserves due recognition at the hands of the latter, and foreshadows an area of prosperity in which there will be no longer an antagonistic feeling between him who raises from the soil, produce, and him, who gives wherewith to raise that produce.

We shall have more to say upon this subject, which, we believe, is a matter of vital importance to the manufacturer, no less than to the millions of producers of crops that require more plant food than is to be found in large areas of our lands that have been exhausted by continual cultivation, without any artificial help or the necessary rest that might enable the soil to recuperate its energies from the natural elements.

PERSONS wanting Poland China Swine, could do no better than correspond with Mr. F. D. Beck, who has for sale choice animals of that breed. See his advertisement in this number.

Chas. H. Lake's Apiary has removed from 96 W. Pratt Street, to Greenmount Ave. and John street. See his advertisement in this number of Queen Bees. At this apiary almost anything can be had connected with bee-keeping.

WE call attention to the advertisement of W. W. Tunis & Bro., who have a large lumber yard where persons wanting lumber of any sort would do well to call, as we know they keep a good stock and at fair prices.

WE refer persons in want of fine stock, such as horses, Bates' Short-Horn cattle, Berkshire swine, Cotswold and Southdown sheep, to the advertisement in this number of E. B. Emory, Esq., who is a gentleman well known in Maryland.

FOOD FOR THE BRAIN AND NERVES that will invigorate the body without intoxicating, is what we need in these days of rush and worry. Parker's Ginger Tonic restores the vital energies, soothes the nerves and brings good health quicker than anything you can use. *Tribune*. See other column.

A SAFE AND SURE means of restoring the youthful color of the hair is furnished by Parker's Hair Balsam, which is deservedly popular from its superior cleanliness.

LABOR SAVING.—The demand of the people for an easier method of preparing Kidney-Wort has induced the proprietors, the well known, wholesale Druggists, Wells, Richardson & Co., of Burlington, Vt., to prepare it for sale in liquid form as well as in dry form. It saves all the labor of preparing, and as it is equally efficient, it is preferred by many persons. Kidney-Wort always and everywhere proves itself a perfect remedy.—*Buffalo News*.

PONDER ON THESE TRUTHS.—Torpid kidneys and constipated bowels are the great causes of chronic diseases.

Kidney-Wort has cured thousands. Try it and you will add one more to their number.

Habitual costiveness afflicts millions of the American people. Kidney-Wort will cure it.

Kidney-Wort has cured kidney complaints of thirty years standing. Try it.—*Exchange*.

Continuous Drain-Tile Machine.

Our attention, of late, has been called to a new invention, slowly working its way from California to the east, in the estimation of those who properly appreciate the vast benefits of under draining most soils, and absolute necessity for some soils, to produce health, vigorous growth and large productiveness of plants. Many persons would have used tiles, and would now, but for the large cost of the same. If this new

invention proves what is said of it, and we have every reason to believe so, from what we have read about it, endorsed as it is by high authorities by whom it has been tested, then every farmer can become his own maker of tiles on the spot where they are required, at the trifling cost of \$25.00 for the machine, and of course the material—cement concrete. It is claimed that the machine is so simple, "any farm hand can, after a little practice, make a tile of *any size*, at a cost not to exceed one-half the cost of clay tile." What is very surprising, the machine can be placed in the ditch where it is wanted to be used, which is what no other machine has ever pretended to do:

"The cement and sand, or mortar, the material of which the tile is composed, is constantly put into feed tube by one man, while the handle of the machine is operated by the other, and with each stoke of the handle, the machine is forced forward from one to two inches, leaving the tile in the ditch in one continuous piece. To enable the water to enter the tile, it is cut two-thirds off down to bottom of opening—inside, as it is being made, which leaves the bottom smooth and continuous, the base being firmly bedded in bottom of ditch, no settling can ever take place after leaving machine, difficulties never overcome by any other method; advantages which will be highly appreciated by many. Three men can easily make and lay 1200 to 1500 feet of 2½ inch tile in ten hours, at a cost not to exceed 14 cents per rod, where Portland cement can be bought for four dollars a barrel."

It has been tested satisfactorily in Michigan. A committee of the Jackson (Michigan) Agricultural Society, especially appointed to investigate it merits, report:

"We cheerfully recommend it to farmers as being practical in its working. The tile being made and laid at the same time continuous, supports itself in passing from one condition of the ditch bottom to the other; for instance, from clay to quicksand, muck, etc., without additional expense of boards, or fear of displacing by crawfish working under them or settling at the joints in filling up the ditch—difficulties never overcome by any other method. If it be practically shown that the cost per rod does not exceed the price represented, this must soon become a machine of general use,

among farmers who contemplate laying drain tile."

The *Prairie Farmer*, of Chicago, Ill., speaks well of it, after a thorough examination, and so does the *Farmer's Review*, of the same city. We agree with these Journals, that it is likely to create a revolution in tile-making in this country, and increase to a wonderful extent, draining, which is so much wanted and been neglected too long in all parts of the country.

By means of this low-priced machine, with Portland cement and sand, an unbroken, almost indestructible pipe or tile may be cheaply made, to conduct water from a spring or stream any distance, for the supply of the house, or for stock in stables or fields, without any objections attending the far more costly use of iron or lead, wood or clay. These tiles of which we speak, become stronger and harder as they grow older. They last forever under ground. Clay tiles are very fragile. These may be said to be indestructible.

The machine to which we now call public attention, is manufactured under the name of the Pacific Continuous-Drain Tile machine, by Mr. M. P. Grove, Toledo, Ohio, who makes the following liberal offer.

SUB-IRRIGATION.

"Five hundred dollars will be paid to anyone who can exhibit a better and cheaper system of sub-irrigation than the Asbestine System of Los Angeles, California. Its great merit has been practically tested for a number of years in California, and it has been awarded a silver medal or a first premium wherever shown.

"That all may see it and the famous Little Continuous Drain-Tile Machine, if any State Fair or District Agricultural Society will offer a silver or gold medal for the cheapest and best system of Sub-Irrigation, and will notify me of the fact forty days previous to the holding of the fair, I will add a cash premium of \$50 and will practically illustrate the system known as the Asbestine Sub-Irrigation System during said fair."

We have become much interested in this matter, and hope some one or more of our agricultural associations will offer the premium as suggested. It would be an attractive feature in our coming grand State Fair. We are likely to revert to this interesting theme at a future time.